

Manual for Athletes



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MANUAL FOR ATHLETES

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FUNDAMENTALS IN SPORTS

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PREFACE

Now, as never before, America is stressing physical strength, endurance, and skill. Sports and athletic contests play an important part in developing and maintaining sound bodies and in providing mental relaxation in these crowded and hurrying days. All young people should learn how to play our popular games well enough to enjoy them and to get value from them. This book leaves the field of sports for girls to others better qualified, and aims to present material useful in building a sound and interesting athletic program for young men. Competitive sport is the best and best liked means to physical fitness. This is written for the use of the athlete, the prospective coach in training, and the coach now on the job. Those coaches who must coach sports with which they are not familiar or have not coached recently will find this book an aid. It does not pretend to profound or exhaustive treatment concerning body care, social give and take, morale, and the basic points concerning sports commonly played in the high schools, colleges, and armed services of this country. It is designed to advance the cause of sports which build endurance, skill, and morale.

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Chapter I

AN EFFICIENT PHYSICAL MACHINE

Athletes Are Somewhat Like Cars

A competitor who wished to win or even make a showing in an automobile race would first of all secure a good automobile. He would want first-class ignition, suitable fuel, excellent and durable material throughout the engine and chassis, the best of tires, and, in short, a well-constructed, smoothly working machine. It would not be enough to have just any old car with four wheels, an engine, a radiator, some type of framework, and a gas tank. In fact, if he had inherited such a car he would set about putting it in the best shape possible, for unless he did so he would hardly be able to drive it to the track, let alone win a race with it.

It is very much the same with competitors in athletic contests: the prime requisite is a good machine in excellent working order, or, in other words, a sound body in proper condition. The athlete faces a situation with more possibilities of improvement than does the driver who purchases a car. Both have their machines. The driver can tune up his car and make minor adjustments but for the most part it is made and he must take it as it is. The athlete inherits the potential qualities of his body but there is still much that he must do to develop that body into a strong and efficient machine. The care and wisdom used in treating the body will help determine whether it will be strong and healthy, and consequently able to perform at its best, or whether it will be only a shadow of what it might have been. This does not mean that every athlete can be as capable as all others, for that is not true. Most athletes, however, can improve constantly and thus become much better than they were. This fact should provide sufficient incentive to build a better body that will serve well during athletic contests and equally well in occupations of later life.

It is well to remember that all human bodies are not of the same type, nor are they designed to work efficiently at all jobs any more than are all motor vehicles. Automobile

manufacturers have produced trucks for heavy hauling, high-powered cars for racing, and a great variety of passenger cars to suit various wishes and pocketbooks. Athletes have similar variations in type and design. Some are well adapted to one sort of activity, sport, or game, and others to other types. The little fellow has extreme handicaps to overcome in a game that puts a premium on big men; the slow runner, as compared with others of his age, can hardly expect to succeed at any time as a dash man; one who has lost a hand or foot will experience great difficulty in basketball; and the player with poor eyesight cannot hope to be a great hitter in baseball. An athlete needs not be discouraged because of some handicap; instead, he needs to work to overcome his handicaps, or, better still, to turn to some athletic sport or event that fits his type. Many people know of good one-handed tennis players, of excellent golfers who can hardly run at all, of fine swimmers with one or no legs, of small basketball stars, and of track champions who overcame the handicaps of severe injury.

With these facts in mind, let us consider further some of the important procedures in building and maintaining a sound body capable of top performance.

The Athlete Needs Plenty of Sleep and Rest

Many young men hardly find time to sleep. There is so much to do and so much to see it seems that there is not enough time for it all. Then, too, going to bed at a late hour has been accepted as evidence that one is grown up, and almost everyone who is not yet mature wishes to be considered more grown up than he is. Consequently, there is a strong urge to go to bed late. What has going to bed late to do with getting enough sleep? Just this: one must get started sleeping soon enough or he cannot possibly sleep as long as his health demands. If one must get up at seven o'clock, he needs to go to sleep by ten o'clock in order to get nine hours of sleep. Too often the player acts as though he believes that there is some mysterious method by which he can crowd a few extra hours of sleep into the time between midnight and seven in the morning, even though he knows it cannot be done. It may be possible to fool himself that way, but he cannot fool the forces of repair that rebuild and refresh his body.

He either gets the sleep and its benefits or he fails to get it and thus denies himself its benefits. There is no shortcut. It is a common expression that sleep before midnight is more valuable than sleep after midnight, hour for hour. There is no substantial evidence that this is true, but it is true that those who sleep a few hours before midnight are more likely to get enough sleep than are those who do not get to bed until after midnight, and here lies the virtue of sleeping before midnight.

How Much Sleep Is Necessary?

It is very difficult to state the exact number of hours that each man needs, because people vary considerably in this respect. Their sleeping requirements vary from time to time according to their state of health, their activity while awake, and other variable factors. Many of those who get but a few hours sleep each night suffer because of this unsound practice. The young athlete who expects to develop properly and to perform at his best should not try to get along on less than nine or ten hours of sleep every night. The younger the boy the more sleep is needed. If possible, a regular bedtime and a regular time for arising are desirable. Regularity is a great aid to anyone; it is practically an essential for top performance by any athlete. If emergencies make it necessary to miss considerable sleep for a night or two, it is a wise policy to make up a part of the sleep missed as soon as possible.

What Kind of Sleep?

There are many different kinds of sleep ranging all the way from troubled, disturbed naps mixed with periods of wakeful fretting and worrying to almost entirely undisturbed, sound sleep that is worth sixty minutes for every hour spent at it. Those who wish to avoid disturbed sleep should be careful to avoid colds and other infections which not only cause distress and unpleasantness during waking hours, but also steal away many hours that should be spent in sleep by making it almost impossible for the patient to sleep soundly. Sore throats, stopped-up noses, fever, aches, and pains all make it difficult to sleep soundly. Greater care in eating will also contribute to better, more sound sleep. Too much

food, or food that is very difficult to digest, especially if eaten late at night, can cause many hours of disturbed sleep. When the stomach is having difficulty, its owner will find it a major problem to sleep soundly. Worry, fear, anxiety, and excitement keep athletes awake, especially the night before important games, just when they need sleep most if they are to play at their best. At least a medium workout the day before the game will help sleep to prevail over the excitement of the coming contest. Some athletes have been able to reason themselves into a calm state of mind that will permit sleep by telling themselves that the coming game is only a game and nothing to get excited about, or that the opposing players will have equally as many problems to solve, so why worry. Some others who feel "nervously tight" have been able to relax by acting as though they were limp rags or as though they could drop right through the bed. These and other artificial means of relaxation are substitutes that may work but are less likely to bring sound sleep than is a reasonably good workout the day before the game.

The Athlete Should Develop Correct Eating Habits

Players should eat the right kind of food. Students of dietetics know that a balanced diet must include proteins, carbohydrates, fats, minerals, various vitamins, and, of course, water. It is wise to eat considerable of those food elements in the form of fresh fruits and vegetables in order to get enough of the various vitamins and enough roughage. Even though the athlete knows that his diet should include those food types or elements, how is he to know whether or not the food he eats contains them? Fortunately, he does not need to worry a great deal if he eats most of the foods now served in the average American diet. However, in some cases certain types are neglected. Hence, without any attempt to be all-inclusive, a list of the common foods that, along with water, contain the major essentials of a balanced diet is presented here:

PROTEINS—lean meats, eggs, cheese,
milk, beans, fish, peas.

CARBOHYDRATES—potatoes, peas, milk, sugar, prunes, apples, bananas, sweet potatoes, molasses, peanuts, almonds.

FATS—fat meats, fish oils, margarine, and other vegetable oils, butter, nuts, cream, cheese (American).

MINERAL SALTS—

Calcium—milk, eggs, figs, fish, peaches, prunes, raisins, broccoli, green leafy vegetables.

Phosphorus—milk, eggs, kidneys, liver, fish, oysters, lean meats, peas, green leafy vegetables.

Iron—eggs, peaches, raisins, prunes, apricots, kidney, liver, oysters, shrimp, molasses, walnuts, pecans, peanuts, spinach, beans, peas.

Iodine—sea foods, iodized salts, iodine tablets.

Copper—liver.

Salt—salt.

Potassium—fruits, vegetables, grains.

Sulphur—meats, beans, molasses.

Manganese—meats, bony tissues. (Calcium, phosphorus, iron, and iodine often are lacking.)

VITAMINS—

A—dairy products, egg yolk, liver, peaches, lettuce, spinach, tomatoes, sweet potatoes, broccoli, dandelion greens, cod-liver oil, halibut liver oil, parsley.

B—(complex which includes among others: B₁, thiamine; B₂ or G, riboflavin; and P₁-P, niacin.)

Peas, beans, brewer's yeast, eggs, kidneys, liver, wheat germ, avocado, green leafy vegetables.

C—lemons, oranges, raspberries, watermelon, parsley, strawberries, cantaloupe, liver, asparagus, cabbage, cauliflower, tomatoes, spinach, green pepper.

D—cod-liver oil, halibut liver oil, kidneys, liver, butter, eggs.

E—wheat germ, green vegetables,

The above list could be much larger, and a number of the foods listed could be repeated under still other headings on it, for there are many more foods than those listed under each heading that contain that essential element. In fact, all of our common foods contain some essentials. The foods listed above are presented for the convenience of those who may wish to have a sample list of good sources of the various food elements.

It is not necessary to eat food containing each element at every meal, but it is advisable to do so every few days. It is evident from the above list that no one food is necessary for the normal healthy individual. In other words, one does not have to eat spinach or brown bread or any other food that may not appeal to him. Spinach and brown bread are valuable in a diet, and it might be well to cultivate a liking for them. But there are other foods more palatable to some people that can be used instead.

It is good practice to eat heartily of milk, eggs, potatoes, fruits, leafy vegetables, sea foods, and some internal organs such as liver and kidneys. Fresh vegetables and fruits should comprise about 20 per cent of the diet.

What About Fried Foods?

Much misinformation has been written about fried foods in comparison to baked, stewed, or roasted foods. It has been claimed that fried foods should be avoided since too much time is required to digest them, and still athletes brought up on fried foods perform as well and are as healthy

as athletes who shun fried foods. Fried beefsteak for breakfast, if he likes it, does not cut the athlete's wind, upset his digestion, or take away his strength. Fried foods remain in the stomach longer than other foods but the difference in digestibility is not enough to be of great consequence. It is better not to eat them the meal before competition. Much the same can be said of cake and pie.

What About Emotions and Digestion?

Too often athletes have suffered from indigestion because they were excited, scared, or angry at or shortly after mealtime, and then have blamed certain foods or the way they were prepared, when the real cause was their upset emotional condition. During times of fear, anger, and jealousy, the glands of internal secretion, especially the adrenal glands, throw powerful secretions into the blood stream that help prepare for strenuous activity and at the same time greatly hinder or even stop digestion. Extensive studies made on animals have shown this to be true for them, and more limited studies on men have indicated that the same is true for man. Digestive difficulties can be reduced considerably by avoiding emotional disturbances around mealtime and for a few hours afterwards. The predominant mealtime attitude should be one of good cheer if possible, not alone because of making the home more pleasant, but because a cheerful atmosphere is a good aid to digestion.

What About Food Combinations?

Some men of considerable learning have contended that certain foods should not be eaten at the same meal with certain other foods. They have named the foods and written books to explain why various combinations are harmful, and still the great mass of normal, healthy humanity has gone right along mixing proteins, carbohydrates, and fats in various combinations and remained none the worse for it in spite of what the books say. Accurate scientific study of the effects of mixing food fails to show the harmful results claimed. Scientific study, however, has lent some weight to the old proverb which states that "one man's meat in another man's poison." That is, certain foods do not agree with certain people; many are allergic to one food or another which may

cause indigestion, headache, skin rash, and the like. Now if one were to eat some such food in any combination, the result would be distress of one type or another, not because of the combination, but because of the inclusion of the food to which he is allergic. It is entirely possible that combinations have been blamed because of the inclusion of some unsatisfactory food in the combination.

Is Candy Harmful to Athletes?

Some years ago many trainers were very definite in their restrictions concerning candy as a part of the athlete's diet. Now sugars and some other types of candy are recommended by some as quick-energy food for athletes. Although experimental evidence does not show that moderate use of candy cuts the wind, it still is wise to avoid too much candy and sugar in other forms, especially for several hours before competition. Some very accurate studies indicate that organisms which are always present in the case of tooth decay grow very rapidly in the mouths of many of the people who eat large amounts of sugar—much more rapidly than when the sugar in the diet is practically eliminated or cut to a minimum. A small percentage of people apparently can eat large amounts of sugar without showing a marked increase of these harmful organisms in their mouths, but a great percentage cannot. That is one very good reason to avoid the candy habit; it may save the teeth rather than the wind.

Dietary Dangers

In addition to eating the proper foods under favorable conditions, it is wise to guard against infection and poisons that may come from improperly treated or handled foods. Green leafy vegetables, such as cabbage and lettuce which are eaten raw, should be washed very thoroughly. It is a good plan to remove the outside leaves, for by so doing, any dirt that they have collected through being handled or any poisonous sprays that may have been used on them are largely removed. Raw fruits need to be washed carefully or peeled in order to remove bacteria and harmful materials especially arsenic and lead, which may have been contained in insect and blight sprays used on them.

Eating canned vegetables and meats served in salad or other forms without heating has caused some deaths in the United States from botulism. In some sealed and not thoroughly cooked meats and vegetables a violent poison is produced by growth of botulinus organisms which multiply in the absence of oxygen. Heat destroys the poison produced by the growth of these organisms and hence is a valuable precautionary measure to apply to home-canned meats and vegetables before eating them.

INSIST UPON PROPER MEDICAL CARE

The Medical Examination

Some schools require a medical examination of all students; in others it is common practice to require a medical examination of the candidates for the various teams before they are permitted to compete. This is an excellent practice, for those who have some disease or defect that would make playing the game especially dangerous for them are thus kept from taking unnecessary chances. There are still many schools, however, that do not require an examination and, too, there are many opportunities to play on nonschool teams. Hence, the athlete who is wise will see to it that he is examined by a competent physician before he competes on an athletic team, especially after any severe illness or accident, for it is much easier to avoid overdoing some body organ or part than it is to repair it once it has been injured. It is not enough just to have an examination and find out what, if anything, is wrong; in addition, the patient should do what the physician recommends. Fortunately, most athletes are fit and can go right ahead with their sport; unfortunately, some are not fit and still insist on playing even though the physician has advised them not to do so. Such reckless chance-taking is likely to have unpleasant consequences.

Regular Medical Attention

At various times during the season there are sore muscles, sprains, cuts, wrenched joints, and once in a while broken bones, dislocations, and concussions. Besides numerous injuries, illness, especially in the form of colds or influenza, is a problem for athletes. In some cases even more

severe illness follows these minor ailments, or comes from other causes. In the event of injury or illness it is important that the athlete receives prompt attention from the trainer or from the physician if the case is at all severe. Ambitious young men have a strong inclination to get back into the game and play before they have recovered sufficiently from illness or injury, and many coaches are sorely tempted to use them before they are physically ready to play again. The high-caliber coach who has the welfare of his boys at heart will overcome that temptation and keep the player out of the game until he is fit. There are some coaches who, when faced with the threat of losing their jobs if they lose too many games, will decide to take a chance on the player. The sport-following public is partially responsible for coaches doing this, because of the demand for victory. The philosophy which says that the coach who wins is a good coach and the one who loses is no good, is pretty largely to blame for the severe injuries and handicaps that come to those who play when they should not. Here is an extremely difficult problem for the athlete to face. He must overcome his natural urge to get into the game when he is not fit, and in too many cases he must also overcome the promptings of the coach who wants to be certain to insure his own success, even at the player's expense. The problem is complicated still further by the fact that some few unscrupulous coaches boast in assembly or at service clubs that they have the athlete's welfare first at heart, in order to cover up their practice of using him when he is unfit. Thus they may gain the confidence of the public and the player and make it easier to convince one who should not play that he should play. It is well to remember that the coach who really is concerned about the player's welfare does not need to boast about it. In order to proceed with safety the player must be checked by a physician, and the recommendation made must be followed whether it permits or rules out play. The game that may seem very important at the time will look unimportant in the years to come, regardless of whether it is won or lost; it will seem like a nightmare if the participant receives permanent injury from it. This needs to be emphasized, for it is one of the most difficult problems that must be faced by the athlete who wants to protect his health and still play in as many games as possible.

In Case of Injury

During times of competition some players are sure to be injured, perhaps severely, perhaps only slightly. When this happens and the injured man is lying on the floor or ground, the inexperienced teammate may feel that something must be done with him at once. This is not necessarily correct. If there is no competent person present to administer first aid it may be much better to do nothing for a short time. Whatever the patient may need, it probably is not having his arms or legs pumped or jerked around, his neck twisted, or his back raised and lowered; it probably is *being left alone*. If he merely has the wind knocked out of him he will be all right in a short while anyway, but if he has a broken bone or a dislocation it may be made much worse by manipulating it or moving it around. Many injuries have been severely complicated because someone felt rather helpless, but also felt that something had to be done at once, so he jostled the injured player about or tried to get him on his feet in a mistaken effort to help him. Here is a sound rule to follow: *Those who do not know what to do for an injured player should do nothing*. If the player must be moved, it should be done as carefully and as gently as possible. It is better to use an improvised stretcher than to have a few teammates pick him up as best they can.

First Aid and Prevention Suggestions

Many players make the mistake of thinking that they prove their toughness by paying no attention to small injuries or the prevention of possible injuries. The good athlete is smarter than that. An infected blister may put a man out of the big game. Playing without a headgear may result in a split skull or a concussion. The athlete owes it to his team and to himself to take care of his body by preventing all of the injuries possible and taking care of injuries that do occur, so that there will be less chance of serious complications. Thus he will be prepared to show at his best when he gets the chance.

An ounce of prevention is still worth a pound of cure. A player should wear his helmet in football games or scrim-

mage. He should be sure that his shoes fit in all sports. Before heavy practice starts he may toughen the feet with tincture of benzoin or something similar. If the feet incline toward trouble it may be necessary to wear supports for the arches during practice, especially for basketball. Knee pads are desirable if the player often finds himself on the floor. If the nose gets in the way in football it is advisable to wear a guard. Sprained ankles are very common injuries, and in most cases the ankle is turned toward the outside. The joint can be taped, or wrapped more cheaply, so as to prevent this turning. Many players do this before every practice and thus prevent injury. A 2-inch wrap 6 or 8 feet long can be rolled and used over and over. A weak finger joint can be protected by taping it to the next finger. Various types of bandages are used to protect and support weak knee joints. Shin guards protect from painful bruises in football, and sliding pads save some burns in baseball. It is the smart thing for a player to protect himself.

Many injuries result in football, track, wrestling, and other sports because of insufficient warm-up. Just as a pitcher should not go to the mound without gradual loosening up of throwing muscles, so should the sprinter have made ready before taking his marks. Warm-up should precede competition by perhaps one-half hour. The player should start slowly and gradually work up to full speed. He may use a few minutes just before competition for a brief rest and to gather his forces for the start. He should be prepared to start full tilt, not only in order that the other team may not win the game before he gets underway, but also because he may be hurt if he goes into a game cold.

Another common time for injury is during the last part of a game or practice. Fatigue often leaves the athlete too tired to protect himself. Sudden contact may cause injury to a knee, an ankle, or to some other body part that is relaxed and unprotected. Here is where training pays dividends. The athlete who can finish strong not only plays safe but is likely to prove a consistent winner.

When the body, especially the heart, is carrying an overload because of the poisons of disease, the athlete needs to be most careful or he may do himself serious injury through

playing. A good way to bring on pneumonia is to get into a fast game of some sort with a heavy cold. It is much better to rest in bed with a cold than to try to work it out. When bad tonsils or other infections are already causing overload to the heart a half-mile run may make more additional demands than the heart can carry. If the heart is healthy, there is little danger from so-called "athlete's heart" even though the exercise is severe. It is another matter if there is already a heart weakness, even though the game is not severe. When recovering from pneumonia, typhoid, or any other serious illness, it is important to take it easy, but some exercise is helpful in healing.

Eating before contests should be regulated so that the athlete does not go into competition on a full stomach. Pressure on the heart and lungs interferes with best action. It is a good plan to eat three hours before playing and to eat the kind of foods that do not stay long in the stomach. Toast, eggs, roast beef, most fruits, and baked potatoes are good pre-game foods for most competitors.

Many athletes are handicapped by various irritating skin infections. Clean locker rooms and clean personal clothing are important in keeping down boils, gym itch, and various fungus infections. Drying well between the toes and changing socks frequently help prevent athlete's foot. Towels or dirty clothing of another player should not be used. It is the player's responsibility to keep his own outfit sanitary. This can be done by having it laundered frequently and by keeping it off the floor. Generally speaking, itch is a filth disease. It can be avoided in most situations by keeping clean.

Any break in the skin may be a source of trouble. The skin is a protective shield against most disease-producing organisms. These may enter through natural breaks in this armor such as the eye, the genital organs, and especially the nose and mouth. Self-protection here suggests washing the hands before eating, after using the toilet, and before dressing wounds. One should not bite the nails or put unnecessary things in the mouth. Every break in the skin such as floor burns, scratches, cuts, and blisters should be cared for immediately. Some good germicide should be used to control bacteria and to wash dirt and bacteria away. Then

the wound should be covered with a sterile compress to keep out further infectious material. It should be kept covered until the new skin forms a protective coat. This is especially important on the skin of the foot. A severe infection can develop because of a small scratch.

The healing agent for bodily injuries is supplied by the blood. Good local circulation is needed. The lack of good circulation is one reason why minor skin abrasions on the feet frequently develop into serious trouble. Heat, which expands the blood vessels, and massage, which stimulates circulation, are two widely used methods of improving local circulation. Just after an injury such as a bruise or a sprain there will be a number of broken blood vessels. Heat then will be likely to increase internal bleeding and cause more swelling. Cold water or ice packs are better to use until bleeding has been thoroughly stopped. These packs help keep down swelling. No heat should be used for at least six hours, or perhaps as well, not until the next day. Then a good blood supply is needed to hurry the healing and to prevent infection. The use of heat lamps, hot towels, diathermy, and massage are now helpful to recovery. A common method is to use a hot towel on the part with a heat lamp over it. Care must be used not to blister the skin. Penetrating heat is desirable if it is available. Ultraviolet or sunlight lamps, so useful in clearing up infections of the skin, are not much help in providing heat; infrared lamps are used for this. The use of heat or massage will speed up the healing of most types of injuries, sprained ankles, "Charley horses," and other bruises and strains. In fact, heat is a helpful treatment in many other ills not the result of injury. A little mild exercise later may improve circulation and help healing thereby. Bumps on the head are one type of injury where heat is not helpful and may, in fact, be harmful. Circulation should never be stimulated in concussion cases.

There will be some serious injury cases that should be in the hands of a physician. It is sometimes difficult to tell where to draw the line between paying needless doctor's bills for some trivial thing and not getting a doctor soon enough with something serious. If there is a school nurse available, she can advise. It is well to see the doctor in at least the following cases: if there is any noticeable deform-

ity, especially with any grating sound on movement, or if there are other reasons to suspect a broken bone; if there is any deep cut or puncture wound which will be difficult to clean out and will bring danger of tetanus or lockjaw. The doctor can give preventive shots for this. In case infection develops in any wound a doctor's care is indicated at once. Red streaks or kernels in arm pit or groin due to an infection are serious signs. The doctor has drugs and other means of control the layman does not have. Boils about the head, especially above the angle of the mouth, are dangerous and sometimes fatal. Medical treatment is essential in these cases, and is advisable in the case of any boils. If there is dizziness, headaches, or other after-effect from a blow on the head, the doctor should be consulted, as in all other doubtful cases.

Building the Body Through Use

Body building does not develop merely a great mass of large muscles, but a strong heart, good wind, steady nerves, strong vital organs, proper muscular strength, and stamina or staying power. These desirable qualities depend to some extent upon inheritance or natural gifts, but can be improved greatly through right practice. Conscientious training and right living can strengthen and bring out one's natural abilities.

A strong heart is of great importance. It is, perhaps, the greatest single physical asset of the athlete or anyone else. A good circulation helps all parts of the body; the heart pump must be efficient to provide this. The heart is mainly muscle tissue and is built up like any other muscle through exercise and rest. The heart, and particularly its delicate valves, can be injured by poisons. These poisons may come from bad tonsils, infected teeth, or other local infections. They may also come from the toxins of disease. Rheumatic fever is especially bad. It is well to remember that any disease may add a serious extra load for the heart to carry. During the course of the disease the player should avoid overstrain. He should not play basketball or do distance running with a cold. There is likely to be an overload due to poisons for some time during convalescence after a serious disease. It is advisable to take it easy until the doc-

tor gives approval to go ahead, and until the player has his pep back.

Good wind depends upon effective heart action and well-developed breathing muscles. Lungs are acted upon rather than acting. Unless there is some disease, as asthma, pleurisy, or tuberculosis, the lungs can be forgotten. Breathing muscles can be built up through graded practice, which becomes progressively more strenuous. The stomach should not be full of either food or gas if the heart and breathing apparatus have hard work to do. "Side ache" is a mark of poor muscular condition and tends to disappear with regular training.

The muscles all over the body develop with vigorous use and sufficient rest. Muscles may be strengthened by use and built up in this way, but strenuous, continued exercise causes fatigue. Then adequate rest must be taken to restore the tissue. This is best obtained by a minimum of nine hours' sleep. Some players may overdo exercise, especially in short periods of severe strain, such as a game or distance running and the like. Far more of them, however, never get enough of general developmental exercise to build their bodies as strong as they should. Manual labor such as pitching hay or shoveling sand is a help. For this reason farm boys often have an advantage over city boys in muscular development. Gymnastics, swimming, and almost all sorts of active sports are useful. Not everyone can be a superman, of course. All normal young men should develop themselves enough to meet the demands of active life, to be able to hike one-half dozen miles without difficulty, to be able to chin the bar eight or nine times, to maintain good posture, to handle and protect the body with control and skill in ordinary activities, and to be able to bear arms in defense of their flag if necessary.

Form in any activity requires nervous control of muscles so that they do the task with a minimum of interference with each other and a maximum of coordination or teamwork. Good form is the skillful way. It is the easiest way to do the job. "Muscle bound" implies just the opposite. It is the awkward or hard way. There is considerable difference in natural gifts in this respect. Some, the natural athletes, learn new skills easily, others must work hard to get them. The

majority are far under the form goals they are capable of reaching through long and intelligent practice. The player with average gifts of speed and strength, with proper form, can pole vault about 11 feet, shoot golf in the low eighties, and punt a football 50 yards consistently. There is no royal road to this learning and few acquire this level of skill in any one of these activities. Much intelligent practice is usually required—too much for those without ambition and determination in this direction.

Steady nerves are a help to the athlete and a good insurance against a variety of nervous disorders later in life. Automatic functions of the body such as beat of the heart, secretion of glands, and digestion of food are controlled by nerve centers below the levels of consciousness and volition. A healthy development of this part of the nervous system is the best guarantee of stable nerves. Since these nerves are conditioned by activity, a wide use of the heavy body muscles, those of the trunk, arms, and legs, early in life is one of the best ways to build healthy nerves. Small children need several hours daily of such activity. This should combine with the discipline of good mental hygiene to prevent the development of poor habits like sulking, tantrums, and selfishness.

Strong bodily organs are interrelated and thus are both the cause and effect of good health. Good blood supply, adequate nutrition, and sufficient rest, all of which are aided by adequate exercise, are helpful in building strong internal organs. These, in turn, are basic to good health and a strong constitution. Here again some are more fortunate than others in inheritance. However, those who have limited natural gifts should give more attention to building a sound body through sufficient exercise rather than less attention to it during their period of growth and development.

AVOID EXCESSES

In Exercise

Even the beginner realizes that in order to improve in ability to play a game, much practice is necessary. But many beginners and even more experienced athletes fail, in actual practice, to take into account the fact that one can

practice too strenuously and too much for his own good. When one is growing rapidly, his heart and skeletal muscles increase much more rapidly in mass, or size, than they do in strength and endurance, or development. Failure to recognize the fact that immature skeletal muscles or heart muscles cannot stand the continued violent exercise that more mature muscles can, may cause the young athlete to overdo. Hence junior high school schedules with other schools in a strenuous sport such as basketball are not advised. When a team represents its school against another school, there is a strong incentive for boys to play even though they have just been ill. Since they are not mature, hard play may become dangerous. Playing with other members of one's own school is less likely to result in excessive strain, for there is less incentive to play when unfit, and there is less likely to be a crowd present to urge one to do all he can. Another poor policy is that of playing for three or four hours in choose-up games, not only because the players grow careless and learn to play careless ball, but also because they become thoroughly fatigued. This makes it difficult for them to rest or sleep well. When a player is extremely fatigued, considerable strain is placed upon the heart and other vital organs, and during tired, careless play, injuries in the form of pulled ligaments and broken bones are much more likely to occur because body parts are not normally resistant on account of the slackness of fatigue.

The tendons, or muscular attachments to the bones, are much less secure and firm during adolescence than later in life. Consequently, excessively violent shocks and jolts such as come to the football player should be avoided as much as possible in junior high school. This is not a recommendation that football fundamentals and drills, or even games that contain football skills which prepare for football competition later, be banned. It is, instead, a recommendation that interschool games in junior high school be avoided. If there ever is a time when an athlete will die for the team, it is in junior high school when the gang is there urging him to play beyond his strength and endurance. Those who are sincerely interested in developing their bodies can do so most efficiently by taking reasonable precautions against injuries which may come because of excesses in

severity or amount of exercise. Too much and too hard exercise during the period of immaturity can be much worse than not enough. This caution is for competitors. Many noncompetitors lack adequate developmental exercise of any sort.

In Eating

There are few young men, or old men either for that matter, who have not eaten too much pie, too much watermelon, too much ice cream, too many apples, or too much fruit of other types at one time or another. Since the food tastes so good, there is a great temptation to eat just a little bit more. Until one has eaten enough to suffer pain because of it, he has little firsthand evidence that an extra helping or two will cause any grief. Most people are convinced after a few trials that the extra enjoyment that attends eating one helping too much is more than canceled by the grief that may follow. Since that is true, little need be said by way of warning against eating altogether too much at one time. Most young people can eat great amounts of food without undesirable results if they do not eat too much at one time. However, there are a number of them who have very efficient digestive tracts and assimilating systems, and very splendid appetites as well. Unless they are careful about eating to excess, they will gain too much weight, and because of the excess weight will not have the ambition or the ability to move about quickly enough to play their best in the games they choose. It is to this group, the members of which are inclined to be too heavy, that the following suggestions are made. Those who do not eat more food than their caloric requirements will not gain weight. Drinking extra water will not cause them to get fat. They must eat more calories than they use up in their daily living, or they will not gain weight. Many who really enjoy their food have eased their conscience concerning any responsibility in the matter by laying blame for the extra weight onto glands that were not functioning properly. Indirectly, the glands may have been at fault, since they may have caused these individuals to feel inclined to avoid activity and hence to use up less calories, but still the extra weight would never have accumulated unless the calories had been eaten. An active life increases considerably the number of calories needed

to meet daily requirements and consequently makes it possible for those who are inclined to be fat to eat more food without gaining extra pounds. But if the additional activity is matched by eating that many more calories, there will be no loss of weight because of the exercise. It has been said that there are two really good reducing exercises that never fail if used under the proper circumstances. The first is rotating the head from side to side, and the occasion is just after being asked if one would like a second helping. The second is placing the hands firmly against the table with the elbows bent and then straightening the arms while pushing backward with the feet; the time is just before that second helping of food. In addition, plenty of exercise certainly will reduce a man's weight unless he eats extra food.

Concerning Poisons

There are two potent poisons which have a particular appeal to young men in this country, largely because they are habit-forming and are often available in more or less interesting or intriguing forms. They are alcohol and nicotine. There are some more mild drugs that, while not beneficial to youth, do not cause a particularly severe reaction and consequently are much less harmful to the prospective athlete. Among these may be mentioned caffeine, found in tea and coffee, and theobromine found in cocoa. There are other particularly harmful but less commonly used drugs such as opium and marijuana, which no successful athlete should ever use.

Many arguments have been advanced by those who wish to use nicotine and alcohol and by those who are interested in making money from the sale of one or both of them, to becloud the facts concerning these two poisons. Some have even contended that one or the other was positively beneficial to the nerves, to the wind, to digestion, to powers of endurance, to clear thinking, and to the attainment of many other human goals. Much of the more recent advertising, however, is concerned with presenting evidence to the effect that this or that particular brand contains less of the harmful constituents than do other brands. Considerable assurance is given to all prospective users that nicotine through this brand of tobacco, or alcohol through that brand of liquor,

is more pleasant to take than through other brands. Since the evidence is piling up rather conclusively that both are harmful especially to growing youths, the arguments concerning the lack of harmful effects are not stressed particularly any more. It seems to be sufficient for this well-fed, rather soft and comfortable civilization of ours to know that some product is pleasant to take. We do not bother much with the very practical question of what will be the effect of taking it. In all fairness to those who are intemperate in the use of tobacco and alcohol, it might be well to point out that one can be intemperate concerning eating, attending nervously exciting events, and in many other ways. However, that admission concerning other excesses does not make the nicotine or alcohol consumed any less harmful. Many have pointed out that a little nicotine or a little alcohol does not do much damage. And it might as correctly be stated that a little strychnine or potassium cyanide would not be particularly harmful, but it must be *very* little. The difficulty with habit-forming drugs, of course, is limiting their use to just a little. Those who try to limit their use to none are much more likely to succeed than are those who aim to use only a little, because it takes more each succeeding time to produce the same result.

Insurance company figures on death rates among users of tobacco or alcohol as compared with death rates among nonusers should provide sufficient evidence for those who need to be convinced that steady and regular consumption of strong poisons is harmful. The player who wants to perform at his best in athletics should know that every unnecessary handicap he can avoid should be avoided. Most athletes have enough problems and handicaps without adding more through the use of tobacco and alcohol. Only the more naive will be deceived thoroughly enough to conclude that since some good performers smoke and drink, neither habit is harmful, for the obviously correct conclusion in the light of available facts is that even though they play reasonably well, those performers are playing below their best possible level. The real athlete is interested only in playing at his best.

Concerning Emotions

There are times in the lives of all human beings when they are angry, times when they are scared, and times when they are jealous or otherwise greatly stirred emotionally. Some, however, experience many more of those emotional upsets than others. And many do so because they have not educated themselves in the matter of getting control of their emotional states. Merely controlling the outward expression of emotions is a big step in the right direction, for failure to express an emotion tends to discourage it. However, it is not entirely satisfactory to just control the outward expression if one is emotionally excitable; the real solution of the problem lies in learning to overcome the undesirable emotions themselves. As stated earlier in the chapter, during the time one experiences a strong positive emotion, adrenalin, a powerful secretion, is thrown into the blood. This prepares the body for immediate strenuous action. If one can work off the adrenalin by marked physical activity the body adjusts to normal again quite readily. However, in a civilized society there are many occasions when one must refrain from expressing his emotions in action. Then the body must carry off the internal secretions without the benefit of big muscle activity. This constitutes an increased burden for the organs of the body, especially if one becomes emotionally stirred quite often. The obvious way to avoid this strain is for him to school himself so that the strong emotional state seldom occurs. The player who has such a terrible temper that he cannot control it is the one who has not had to control his temper. Given the same temper but some big, tough opponent who would just as soon beat him up as look at him, the uncontrollable temper very probably would become controllable at once. Many, although not all, of the emotional upsets a player experiences could be controlled. Simply going ahead in an unintelligent manner and letting any emotional states that may occur irritate him and cause him grief is going to excess in lack of emotional control. By intelligent planning and consistent practice he can gain greater control over his emotions and make them serve his needs rather than handicap him in his dealings with others, and his bodily organs will, through this practice, suffer less strain than during a program of letting his emotions command him.

PROPER SEX LIFE

The average young man of today has more sex information available than the young men of past generations had. Even so, there is much misinformation passed around now concerning sex. There are some essential sex facts that should be known to all youth, and one of the most important of these facts is that premarital sexual intercourse is not essential to proper sexual development and manhood, and had best be avoided. To some people a firm belief that such a course of action is morally wrong serves as an adequate means of control. Others require additional evidence. Premarital sexual intercourse brings more grief, heartache, and disease than it does enjoyment, but this is not always plain at the time. Unfortunately, some young men have great difficulty getting the long-time viewpoint on the subject until later in life. It should be pointed out that a happy married life can be based much more surely on premarital continence than on premarital promiscuity. Since the athletic machine can be severely handicapped through venereal disease, more details are presented on that aspect of the problem.

There are two severe venereal diseases, syphilis and gonorrhea, that are marked scourges in this and many other countries. They are both contracted mainly through actual sexual contact. Regardless of how sure one may believe his prophylaxis, or preventive, to be, or how much smarter he may consider himself than others, if he takes enough chances he is almost certain to contract one or both of these diseases. And what if he does? Either may handicap him for a period of time during its development. Gonorrhea may leave him sterile or rheumatic, and syphilis may leave him insane or dead; in fact, it is very liable to do just that in time unless he goes through a rather unpleasant course of treatment. If it were true that these diseases are easy to avoid, then millions would not have them. The athlete should not forget that most of the victims considered themselves as shrewd and clever as he believes himself to be, and that they thought they knew just how to avoid the diseases. Giving one's body the opportunity to function at its best includes a well-controlled sex life.

The practice of self-excitation or stimulation of the sex organs indulged in by some boys is not a sure road to destruction, but rather an evidence of not yet having grown up. Masturbation is an undesirable habit, and if practiced to excess tends to dull one's ambition and reduce one's vigor. At one time traveling lecturers impressed upon high school boys the terrible fate that was in store for those who practiced the destructive habit of "self-abuse." Since the available facts indicate that the habit is foolish but not physically dangerous unless practiced to excess, there is little reason to become unduly disturbed about it.

Many boys worry unnecessarily about emissions. These are not dangerous. Instead they are a natural occurrence among normal, healthy, young men. Many worry over emissions during sleep because they believe them to be an evidence of something wrong. The best plan is just to forget about them. They will occur less often if thoughts of sex are dismissed from the mind by occupying it with something else.

Chapter II

FIGHTING HEART

Some athletes seem always able to perform near their best. Others seem capable of great things but never get them done. The difference is that thing we have come to call spirit, fighting heart, or morale. Lack of it is the most frequent reason for failure to make the team or to play well. Morale is a high state of mental readiness for competition. It is not easily shaken by ill luck in a game. It is the spirit of "never say die," the spirit of "I think I can," and of "up-and-at-'em." What are the characteristics of this desirable attitude? Upon what does it depend?

The all-American has this quality in high degree; more than any other thing, it is the distinguishing characteristic of the champion. Other men may have as much natural co-ordination, but they lack the unquenchable spirit which distinguishes the champion. Examples are numerous. Walter Eckersall, the great little all-American quarterback of Coach Stagg's old-time Chicago team, never weighed as much as 150 pounds. Glenn Cunningham, American and Olympic star miler, was so badly burned as a youngster that doctors feared he would be crippled. Bob Fitzsimmons, world's champion professional fighter, gave away weight to almost every man he ever fought. The same was true of "Farmer" Burns, old-time wrestling champion, when professional wrestling was a contest rather than an actor's show. These men were champions because they had the spirit that makes champions. There are a number of basic factors of good morale. Like other traits it requires habit training. Like many other desirable things it follows a long road of hard effort and conscientious practice. Good health and stamina are necessary basics. Finally, spirit is helped by tradition or anything else that supplies added incentive to win.

The natural competitor is the one who seems to have these gifts by heritage. They appear to be in his nature and

need but little learning. To some extent this is true; as one individual may differ from another in his physical gifts of strength, of speed, and of stamina, so also may he differ in spirit. But many of these things can be improved by practice. The successful athlete develops these capacities. The successful coach has a capacity for bringing out these traits in his squad. Players differ in natural aggressiveness. These differences may be matters of variations in health, glandular secretions, and outside stimulus. One may seem by nature to lead, another may be content to follow. These traits are made stronger by practice. Finally, players differ in background. One learns to use his fists because he must to defend himself; another does not. One gets body contact in sports competition, another does not. All these differences tend to color the attitude of an athlete toward a sport that involves, more or less, those things with which he is familiar. Familiarity inspires confidence. The unknown breeds doubt. For example, a boy, born on a ranch, who has grown up with his own horse, should take more readily to polo than another lad who has never seen a horse at close quarters and who therefore looks upon it as a formidable animal.

Spirit is built up to a large extent by strong incentive. The person who plays a game with most spirit has usually spent a lot of time on that sport. Winning means much to him. He has reason to be interested. He *thinks* football, baseball, or whatever it is. The player who does not care much whether he wins or loses will not show much fight or spirit in his game. If it makes no difference whether he wins or loses why should he get excited about the contest? The quitter may be a quitter because he is not very much concerned. The athlete who gets results is the one to whom winning means a great deal. A certain sport has more appeal than others to a particular player. An ancient rivalry will be highly contested. When the championship hinges on a game, there is more interest and more spirit. In this respect team membership in a league or a conference usually has the result of improving competition. Interest in the town or student body makes the game seem more important and promotes better performance. Most teams play better at home before their interested friends. The player with plenty of spirit

is likely to play every game as though it were a championship. Every game is important to him. Further, this attitude leads to championships.

Any man will do more for his friends than for those he does not care for. There is an added incentive for winning when the players like each other. Each man should do his share by cooperating with other team members and by knowing them and getting along with them. Then each man will try not to let down the team. Many enduring friendships may be made in sports.

Athletes will work harder to win if they like their coach. The reverse is also true. Bad feeling between players or player and coach is sure to hurt the team. The coach must not sacrifice discipline, however, merely to be a good fellow.

Outside distractions which prey upon the athlete's mind are harmful to fighting spirit. It is hard to develop the necessary interest in a game when one is worried about something else, such as bills to be paid, quarrels with the girl friend, poor marks in school, and trouble at home. The athlete should face his trouble and make an effort to iron out his difficulties. It is best to do something to develop a new interest and to consult someone he trusts. The coach is usually willing to help all he can. It is a mistake to sit and worry about problems without taking any action to solve them.

Good health is essential to good morale. If a man's physical welfare is at a low level his mental attitude will suffer because of it. A toothache not only hurts, but also hurts fighting spirit. Good health implies not only the absence of disease but being in top physical condition. It is more than just being out of bed. It is living 100 per cent. The vigorous person is naturally more aggressive and persistent and so accomplishes more.

To some extent this is due to proper diet. It is sometimes argued that to be aggressive a player must eat meat or drink milk, that dominant peoples have always been meat-eating or milk-drinking. Whether this point is true or not, there is little question that certain food elements are essential to health and growth. Plain, wholesome food with plenty of fresh fruits and vegetables is desirable. He who wants

good health must follow the rules of good hygiene in other respects, particularly in such matters as getting plenty of sleep, taking adequate outdoor exercise, elimination of body wastes, avoiding infections, and refraining from the use of poisons such as nicotine and alcohol.

Stamina, or staying power, is related to good health but depends to some extent upon other things such as degree of training, natural beat of heart, vital capacity or size of breathing apparatus, native strength, and other physical factors. The greatest single difference to be observed in athletes is the difference in training. Almost any normal boy can develop good enough condition to go all the way through his game and to finish strong. A strong finish is a psychological boost to morale, and more often than not is associated with winning ways in athletics. A majority of athletes never reach the peak of training of which they are capable, and so do not do their best.

Many coaches have developed only gray hair in trying to make a fighting team out of a group of spiritless players. The most discouraging proposition is the big, strong fellow who ought to tear up the earth on the football field but remains content to let the little men push him around and run over him. On the other hand, if the coach can find eleven real fighters, he has an aggressive football team without thinking much about it.

To some extent spirit is catching. If some players have it, others may take an example from them, so a natural leader, or "spark plug" may inspire a team to extraordinary deeds while the same team falls apart without its leader. Likewise, players may catch this quality from an enthusiastic coach. This also works in reverse. Players become disgusted with the loafer who could do it but just will not. This hurts the morale of others, as does the coach who neither knows the game nor works hard at it.

Effective morale should build to a peak just before a game. It is not easy to get set and be ready at the right time. Sometimes it is necessary for the players and the coach to be careful about overdoing and thus having spirit up for playing the game before it is due. There is an anticlimax then. It is like saying all of one's goodbyes and then waiting one-

half hour for the train to start. *It takes some time to get mentally ready for a game, and this should gradually build up over several days to just before the game time.*

Climax games are pointed for all season. A fighting team shows spirit as the game approaches, and when the whistle blows it is ready to go.

It is a common mistake among players to confuse rough talk with fighting spirit. It is not necessary to be quarrelsome to have spirit. In fact, this is harmful to morale. There are a lot of times in games when players become useless for effective playing because they are concentrating on dirty play. When this happens the man takes his mind off the main objective, which is to play well and to win the game. A further argument for the futility of such performance is that the attendant penalties usually hurt the offending team far more than the other team is handicapped by the dirty play. Deliberate efforts to injure a star opponent are beneath contempt. Competitors should play to win but play like men. The coach must lead the way in sportsmanship. It takes character to teach character.

Good fellowship among team members is of the greatest importance. Ill feeling between players carries over into the game and reduces the team's efficiency. It is a great mistake to think that a player shows fighting spirit by being quarrelsome and ready to fight at the drop of a hat. Friction created in this way spoils cooperation on the court and on the field. Further than this, undesirable habits may be built which will be a handicap in everyday living. Almost everyone needs more friends, not less.

Every coach is anxious to maintain harmony and good feeling on the squad. Each player should try to contribute his share by being friendly and taking interest in others. The result of harmony is always better performance of the team than would otherwise be the case. In this connection it may be added that habitual "grousing" and complaining always hurts the squad. In the long view one of the very best habits that can be acquired is that of making friends. Grumbling and fault-finding hurt those who complain more than it does anyone else. Players should always be more

critical of their own play than of the performance of teammates.

A lot has been said, in speaking of sports, concerning alibis. Alibis are not confined to sports, of course, and they are not confined to any group; everyone makes excuses for his shortcomings. A man may find situations where he believes an alibi must be given. Others generally do not take excuses as seriously as they appear to do, and he who makes them usually will be marked down for it in their estimation. *If you have a good excuse, don't use it.* If a game is lost, it is much better for the loser to say: "We took a licking," and to blame himself, than to say that the referee robbed his team of the game, or to use some other favorite alibi. Such excuses as: "The game ended too soon; if there had been five minutes more we would have beaten them;" and "The coach did not play the right man," are not worth mentioning. With regard to playing the wrong men, coaches, of course, make mistakes just as other people do. It is strictly to their interest to make the right choice of men, however, and the number of defeats due to playing the wrong men are fewer than those credited to this error. Systems of play make a little difference but only a little. It is true that a fast man needs the chance to outrun slower opponents. The strong fullback needs opportunity to use his power against weaker opponents. Generally speaking, however, these opportunities come with almost any system. If a football team, for example, is composed of good players well-grounded in fundamentals, it can, with a little practice, play the single wing system, the "T", the Notre Dame, the Double Wing, the Short Punt, or almost any other sound system, and with good results. Another eleven who cannot block, tackle, kick, or defend against passes can try out all of these systems and will find that none are suited to their peculiar talents. The complaint that the game was over too soon is a lame excuse. Every player knew how long the game would last and should have been prepared to play and put forth his best while it was going on. Nearly all officials are honest, and the minor mistakes that any man might make who has to render so many quick decisions are likely to balance off on both teams. In any case they will not make the difference of success or failure unless a team is already getting very

close to the danger line. When it is said that the team simply could not get going, what is meant is that the majority of the men did not hustle, and therefore were being outplayed.

This brings us to the matter of luck and breaks of the game. Some people say that there is no such thing as luck—that the good team makes its own good breaks and a poor team constantly keeps itself in hot water with its own mistakes. This is true of 90 per cent of the cases that are charged off to bad luck. Perhaps the other 10 per cent are truly a matter of luck. The more expert the observer, the less he will charge to bad luck. A few common examples can be cited.

A football team that insists on carrying the ball all the time on a rainy day is likely to make many fumbles. If these fumbles set up the break that loses the game, many of the fans will say that the team had bad luck. Was it bad luck or unintelligent play?

A basketball team one point ahead with only seconds left to go, may try a wild shot. If it has the "bad luck" to miss, and the opponents get the ball, go down and make a basket, and win the game by one point, is this bad luck or foolish play?

Or sometimes a team one point ahead has a flat pass intercepted for a touchdown.

Similar examples can be cited in every competitive sport. The alert, smart, and well-trained team is usually a lucky team. But it still must be granted that there are occasional things that come up due to chance, just as there is no explanation why flipping pennies should result in heads coming up three times in a row. And sometimes these mischances do influence the course of a game. This is not, however, a frequent occurrence and good and bad luck will balance off over several games.

The "jinx" in athletics is a combination of bad luck and good imagination. There is an important psychological factor here in that if one expects a licking the job is more than one-half done for the opponents. Opponents come into the game confident that they have the "Indian sign" on the team that fears defeat, so they play with confidence and poise, and

therefore, play better. The members of the scared team go into the game feeling that they are jinxed; consequently, they are inclined to make more mistakes than they ordinarily would, being nervous and tight, they become more disheartened at minor breaks of the game, and, in general, do not play as well and give up more easily. A fine way to break a jinx is to get a lot of practice and learn fundamentals better than the other team.

Confidence is a big help in winning ball games. Every coach wants his players to be confident. There are a number of things that enter into the habit of self-confidence. Any team that enters a game should have some hope of winning. Perhaps the prime factor in confidence is success. A player needs to work from something that he can do. From this point he gradually builds up to more difficult things until he can do these too. Thus he learns to master the necessary elements, the fundamentals of the game. Knowing that he has these mastered naturally leads to confidence. If, when he goes on the field, he knows that his team members are all good tacklers, good blockers, able to defend against passes, and so on, he has less cause to worry about what the other team may do on offense. Another thing that will help build confidence is to get the habit of keeping going and never quitting. "A winner never quits and a quitter never wins." The player should make this his motto and make it a habit. In considering opponents, he should remember that they are only human just as he is, and with teams in the same class the team with the most determination and the most hustle will generally be the winner. In his own league no contest should be hopeless. Of course, it is easy to imagine a hopeless situation concerning competition. A small high school football team playing a big university team would have no chance to win; but there are no such differences in one's own league or among neighboring schools. An athlete should go into a game feeling that it will be a hard one but that if his team hustles and plays well it can win. He should never admit that he is licked before he starts. He should never enter a game with the idea of holding the score down. A mascot, a rabbit's foot, etc., are less suitable things in which to put faith than are solid, sound fundamentals.

Finally, confidence is largely an individual matter. Some individuals seem to lack all confidence in themselves; they suffer from a sense of inferiority; they must strive to overcome this handicap; they should work with a good performer; work at fundamentals, and develop a specialty. Others are naturally confident, perhaps too confident, and do not have the same problem. Each athlete must work at this according to his own needs.

Overconfidence is a fault which has spoiled the record of many a fine team. Headline hunters are bad for a team. Team spirit suffers if a star boasts about himself. There are certain symptoms of this disease which show at practice time. It is far more difficult to cure than to diagnose. One good evidence of overconfidence is the player's being satisfied with sloppy performance, being pleased with himself, and not being a hard taskmaster for himself. The player who has a "fat head" gets lazy and loses his drive. In other words, he does not have to strive to be good—he already is good. Another indication of overconfidence is indifference before a game, to the game. The player is not interested in perfecting his play, and the team begins to suffer. The player thinks: "We are going to win anyway. Why bother with the hard work for which some other man will get the credit?" Everyone wants to carry the ball, or everyone wants to shoot baskets. In consequence, team play is poor because of two things. The player is self-satisfied and, therefore, lazy, or he is seeking personal glory. When the athlete begins to get interested in the sport page, it is a danger signal. There is no room on the team for the "glory hound." Many coaches ask the boys never to read the write-ups during the season. It is better for the player to delegate his mother, sister, girl friend, or kid brother to keep these things for him until the season is over. Reading them is sometimes an easy way to get a swelled head. The story is told of a university end who felt that he was well on the way to becoming an all-American. On a trip the coach noticed the light on in his berth. On looking in he saw the player busily reading his newspaper clippings. The next day a big, rough tackle across the line was making life miserable for the end. Between halves he asked the coach how to handle the tackle. The coach said; "I don't know. You might show him those press reports."

The player should keep a number of things in mind concerning overconfidence. He should feel that when the day's game starts all "dope" is out of the window, and the game will be won or lost depending upon how it is played that day. The opponent should never be underrated. It is wise to assume that he may have had an off-day the previous week if he looked terrible, and that the next week might be another story. It is best not to look past the game at hand. It is the one that counts. Thinking about the next week's game may cause this one to be lost. Another thing that breeds overconfidence is playing against a poor team where anything will work. For example: The other team's football blocking may be very ragged or basketball defense very poor. If the other team is so weak that it cannot put a player to the test, the natural tendency is for him to be well satisfied with what he is doing. Running up a big score generally has a bad reaction. Aside from the fact that it humiliates the opponents, it makes the winner think he is a world-beater, and consequently he may forget the need for trying to improve. And it causes future opponents to point for this team. Finally, the less the player has to do with the publicity side of athletics during the season, the better off he will be as regards overconfidence. The squad which has plenty of good boys, each hustling to hold his place, will have better spirit than the squad in which some of the boys make the team easily and then relax for the season. It is not making the team that counts, but making the team a winner.

Overconfidence must be held down, or it may have to be cured with a defeat from what on other days would be an inferior team. This is a problem for both the athlete and his coach if a good team is in prospect. There are several suggestions. First, it is best not to talk championship, but instead to take the opponents one at a time, get ready to play the next game, and figure that every game will be tough. Second, unwarranted optimism should be kept down, and wild publicity that rates the team a world beater discouraged. Personal publicity is not too good because the "star" is usually played up better than he is, and the rest of the boys resent it. An effort should be made to hold down overconfidence in the student body, for if it is present the players are almost sure to catch it. These are some of the things that incline

coaches to pessimism. A coach should use reserves when he can to keep everybody hustling for a place on the team. Occasionally scrimmage will show up careless mistakes and poor play due to the indifference of overconfidence.

There are always certain breaks in a game. The team should be alert to make the most of good breaks, or to neutralize bad breaks. It should be awake to the psychology of the situation. For example, consider a team going down the field in good style when someone fumbles and loses the ball. Here is a break possibly due to a lazy center who had not practiced to perfect his pass, or a halfback who did not know the signal, but nonetheless a break with psychological possibilities. Now if the other team can take the ball and start a march downfield, putting two or three first downs together, it may very well go on for a touchdown, and the loss of the game will be charged to the bad break. If, instead of this, the team which fumbled can hold the opposition to no gain and force them to punt, they can get the ball and start over. Nothing will have been lost except yardage.

By the same token it is a marked advantage in baseball to have the first man up get a hit or a walk, especially if the opposing team or pitcher is a little green or easily upset. From the psychological side it is an advantage to "get the jump" on the other team. That first hit in baseball and the initial first down in football are worth more than they appear to be at first glance.

Similarly, it is worth a good deal to keep the other team under pressure. Generally speaking, the team that stays on the offense has a better frame of mind for winning than has the team on defense, so a good offense has been called the best defense. Initiative in sports as in military operations is worth a great deal.

The relation of fight and spirit to their visible outward signs is a matter of some interest. Having observed that a hustling team shows a lot of pep, some teams seek to find hustle by practicing the things that show it. Their plan is to run out on the court, do a lot of yelling, be noisy and active, and then hope that spirit will follow. This may also, it is hoped, serve to confuse and frighten the opposition. To some extent such stunts may prove useful, but they have about

as much chance to backfire. The other team may fight harder instead of being confused. Further, the team that lacks fight and is only putting on an act may find that the act is easy to see through, and the whole thing will fall flat. Noise is not a substitute for spirit.

Closely related to fighting spirit is the problem of being scared. Many things may make a boy feel this way. Timidity is often due to inexperience. The cure for this is experience with the sport. Body-contact sports, like football, boxing, and wrestling carry over to an extent one to another. Many games lead up to others with like features. New experience should be gradual, or the sudden baptism of fire may cause undue fright. Also, bravery is related to faith. A man is not so sure of himself in battle when empty handed as he is when he has weapons in his hand that he knows are good. In sports these weapons are thoroughly learned fundamentals. If a man has this good groundwork he can avoid a lot of trouble, and the knowledge gives him confidence. Next physical strength and stamina are assets in man-to-man competition. The athlete should try to build up his powers. The knowledge of strength and staying power is a source of confidence in times of trial.

Early misfortune may be the cause of some so-called yellow streaks. A burnt child dreads fire. Just so a boy hesitates to try a stunt if the last try caused a broken leg. This is perfectly natural, but it is a thing the athlete must work to overcome. He may have to work up to it, but he must *try it again* if it is an essential to success.

There are several ways of fighting fear besides those already mentioned. One must do something, take positive steps, get into action. He must not let himself sit and worry. He should try to think of what he will do to them rather than what they will do to him. He should take his mind off himself and think of opponents. The chances are that their problems are as big as his. Finally, he should try to analyze his troubles, get at the cause of his fear, and then not daydream but do something constructive about overcoming his doubts and fears.

Much has been said, and some of it is sensible, concerning keying-up for a game. There has also been a great

deal of nonsense on the subject. This is a vital subject. One's soul has a chance to grow in the big game. A common cause of failure to get set lies in the athlete's leaving the keying-up to the coach. It is a personal problem with each player and a measure of a player's spirit. It takes time and attention. A man cannot loaf all week and then get into the frame of mind to play while he gets into his uniform. Several days of "pointing" will be needed. Individuals differ, and the coach must work with the athlete to have him ready to play, both mentally and physically. But he should not have to do the job primarily. First of all it is up to the athlete. Coaches like to see the man who gets himself ready to play. The coach may miss the signal. Take the sad story of the great halfback. The only way to appeal to him was through his hero, Napoleon. His coach learned this and things were going well. Finally, in the big game of the year the home team was a point behind, the game was about over, and they were being held on their own 30 yard line. The coach called out his star and said: "Napoleon wouldn't let them do that," and sent him back in. The great halfback took the ball, knocked the opposing tacklers aside, and ran past them all, including the safety. Then on the 10-yard line he hesitated, laid the ball down and turned to face the other team, who recovered the ball and the game was over. The halfback explained it all to the coach afterward. "Napoleon," he said, "never ran from anybody."

One should not count on a fight talk between the halves to win a game. Only a few games are won that way. Tradition may be used to key a team. Sometime sarcasm may anger players or pleading have an effect, but most of the getting ready must be done days before the game. It should be remembered that emotion is no adequate substitute for teamwork, training in fundamentals, and good condition.

High keying is not possible for every contest. It takes time and mental edge, which can be attained only infrequently—perhaps two or three times in a season. This has to be considered in making out the season's schedule.

Good morale is equivalent to doing. This is a problem for all people. It is the key to victory in athletics and in war. How can a man shape his destiny so that this may be? Some have been missed; some are beyond us. Seeking the

answer is as if to say, "This will give éveryone ambition." A man who could give people ambition would be in great demand. There must be reasonable limits to ambition and to the expectation of building it. The fact remains that only a small minority of athletes (and others) make anywhere near the most of their gifts. He who would be an athlete must have the physical requirements, but he must also have a strong urge to do something with them. He must have the desire. In most cases it is up to him; he *may* fail, but he *can* succeed.

Chapter III

BACKGROUND AND SOCIAL ATTITUDES

The Attitude of Players

Those who play and attend games today are inclined to forget that in years gone by attitudes prevailed among players which were very different from the ones we experience or witness now. There was much distrust of competitors and a tendency to question the other fellow's motives. One important reason for this lack of understanding among competitors in athletic contests was the absence or scarcity of standard, generally accepted rules such as we have today. Instead, each group had its own local rules and modifications and played according to them. When a team traveled to another locality, the local changes of the rules in that region were used and the visitors who had different rules often thought they were being cheated. This disagreement on rules was a constant source of trouble. Another major difficulty arose because the officials were, for the most part, poorly prepared concerning the rules and inexperienced in officiating contests. Hence they made many mistakes. Besides this failing, they were usually selected from the home community, and whether or not they let their feelings for the home team influence the decisions they had to make, the visiting team often accused them of favoring the local players. Besides the difficulties over rules and officiating, there were other problems that caused much quarreling and ill feeling at games. Those problems were present because the players had not had sufficient training in give and take and in getting along with each other during competition. People in general inherit a definitely competitive spirit and learn rather reluctantly that there are limits in the expression of that spirit beyond which it is not well to go. With that basic urge to build upon, as could be expected in the absence of training to the contrary, many players tried to be rough and tough and prided themselves upon doing so. This tendency, coupled with a now quite generally out-

lawed philosophy in sport that one of the best ways to win is to injure or cripple the better players on the other team, caused many contests to end in fights. Our present reasonably well-ordered games have come to us out of a background of strife and contention in years gone by. Those players were essentially as fair and generous at heart as are players of today, but they were the victims of unfavorable circumstances which, for the most part, have been removed during the past sixty years of athletic experiences. That is, ways have been devised to conduct games and to instruct players so that they can compete whole-heartedly and still not condemn those who play on the other side.

The Attitude of Coaches

Although most high school and college coaches are now regular faculty members who have many other school interests besides coaching, that has not always been the case. Coaches of the past often conducted some business or worked elsewhere for their principal income and then coached the teams on the side. Some came in from other towns, coached and played with the team for the season, and then departed. Few of them were regular faculty members, and consequently most of them felt little responsibility to the school in the matter of running the team. They often coached the team for little or no financial return. In some instances the coach tried to make a little extra money by betting on his team. Then he was more tempted than ever to win by almost any means that came to mind. Coaches were mainly free agents who were concerned with winning the games first and foremost. If a coach wanted to play rough ball, he was restrained much less than is a coach today who has the same urge. Fewer long-term connections with schools and communities and much less responsibility to the school authorities were important factors in establishing this practice of "do as you please." There was less respect among the coaches for each other and more of a tendency to question openly the motives of competitors. Now so infrequently does one coach question openly another's motives that the occurrence is very definitely news, and the one who questions is likely to lose caste because of his conduct unless his fellow coaches have also had the same experience with the man in question.

The Attitude of the Public

The public, as represented by student bodies and followers of teams in general, although often displaying less satisfactory attitudes at games today than do players and coaches, still displays attitudes vastly improved over those of the past. Old newspaper accounts of games played fifty and sixty years ago bear out the contention that team followers were quite generally belligerent. They apparently went to games prepared to fight it out with all comers after the game ended, and not infrequently met followers of the other team who came with the same purpose in mind. Players on numerous occasions found it necessary to defend themselves not only from opposing players but also from spectators both during and after the game. The officials, too, experienced some major trials. Without implying that there is any great amount of unreasoning love and affection wasted upon officials today, one can say that their lot is much more pleasant than that of earlier officials. Team followers often held the officials personally responsible for close games that their teams lost, and treated them with about the same courteous consideration that they would any crook or robber (common terms of endearment used in referring to officials at the game, and in print afterward). If the unexplainable did happen and the visiting team won a close game from the local boys, even moderate precaution dictated having horse and buggy ready so that they could make a run for it before the home fans could get organized.

PRESENT VIEWPOINT CONCERNING SPORTS

Purpose of Physical Activities

Various purposes have dominated those who regulated physical exercise in the past. At certain times activities have been encouraged almost entirely because they made a distinct contribution to a better army while others have been discouraged because they interfered with military preparation. Cases in point are the encouragement of archery a few centuries ago in England and the discouragement of golf, because golf led archers away from practice; and the sponsoring of personal combat games among the early Romans while suppressing dancing, since the former helped

build stern, rugged soldiers while the latter was considered effeminate. At various times major emphasis has been placed on building strength, notably in the United States during the last half of the past century. For a time bodily proportion was one of the chief interests of those in charge of physical activity and quite recently discipline was an important objective. In general, those who have sponsored and followed sports have overemphasized winning and failed to count the cost of winning at any price or at too high a price. Some few professional exploiters of young competitors represent an unfortunate extreme in this respect. The present view of those who see more clearly the great educational values in athletic activities does not exclude winning, for the game loses most of its value if played half-heartedly. This modern viewpoint does insist, however, that as many values as possible be gained from competition rather than that one goal be pursued to the exclusion of all others; it does not rule out any desirable purpose of the past, but instead, wishes to include as many of the desirable outcomes as possible. Sports for sports' sake has been the prevailing philosophy here; our sports have emphasized free, democratic competition and always should. Poor boys can make the college team. The caddy of yesterday may be the golf champion of tomorrow. Fortunately class snobbery in sports is very limited in this country.

The larger purposes of sports today include physical, mental, and social goals. That is, the athlete who gains from sports all that they have to give him will receive physical benefits in terms of skills, strength, endurance, speed, and health; mental benefits in terms of knowledge of rules and game situations; psychological balance and easing of nervous tension through exercising the large muscles; and social benefits that come by means of improvement in attitudes and characteristics. Since the mental and physical purposes of sports are discussed in other parts of this book, only the predominantly social aspects will be considered here.

There are many socially desirable qualities to which a program of athletic activities properly conducted can make a definite contribution. These qualities can be grouped under a variety of headings, but whatever headings are used, there

is likely to be some overlapping in almost any grouping. The following six goals that well-conducted competition should help the athlete attain represent reasonably adequate social aims for athletic competition. It should be emphasized that being a skilled performer is not enough, for correct social habits and attitudes are as much a part of the game today as is the ability to play it well.

Courage

It has been pointed out by leaders in sports that life has become soft and easy for many and that in this process the sterner qualities have been neglected, especially in the training of the growing generation. Too many young people get up late in the winter time, step into a warm room where they dress in comfort, eat a breakfast that has already been prepared for them, and probably follow this with a ride to school in a heated car. Contrast this easy life with early pioneer winter morning experiences which included dressing in a cold room, maybe after brushing the snow off the floor, then getting in some water, and doing other chores for an hour before breakfast. After breakfast more work around home followed by a hike of a mile or two to school, in good or bad weather, completed the average morning experiences of many children. Evening routines were similar to morning activities, and work was the order of the day during school vacations. Few children became cross and dissatisfied because they could not find anything to do. Since the home is doing much less than in days past to develop physical courage and the ability to take it without complaining, other agencies must replace the home in this respect. One of the best of these substitutes for the home in the development of courage is athletics. We are courageous if we have been taught, either intentionally or unintentionally, to be courageous. We lack courage if our experiences, directed and undirected, have taught us lack of courage. The average easy, protected life does not provide enough opportunities to learn to be courageous; consequently those in charge of athletics must build courage, for the athlete without courage is not worth having around. The yellow streak is a term applied in athletics to those who have not developed sufficient courage to meet squarely the demands of the occasion.

Sometimes—probably most times—it is the fault of the occasion rather than the fault of the player. That is, the player is placed in a situation that requires more experience than he has had. Lack of familiarity or lack of successful experiences with various skills is generally the real explanation of what has been called the yellow streak. There is almost no evidence of lack of courage among boys who have been properly trained by competent coaches. Where the football player is afraid to tackle, where the tennis player is afraid to smash a high one at the net, where the golfer fears the three-foot putt, where the nonswimmer is afraid of water, where the basketball player fears the free throw that may win the game, there is definite evidence of past experiences that have been insufficient in amount or kind. The experience is most likely to be inadequate in type or kind, rather than in amount, for it is the way things are done that determines largely whether courage or fear will result. Those who direct activities want to help and can help boys to overcome some fears, but many athletes have little secret fears about which they do not tell others. It is the problem of athletes to overcome many fears themselves. Can they do it? And how can they do it?

They can do it. There are few fears that cannot be banished by proper practice or experience. Yes, courage can be attained by practicing to develop courage. The practice must be correct, of course. The way to overcome fear of water is not to jump off the deep end but to approach the problem gradually, possibly with practice in putting the face under water in the washbowl, then in bobbing or ducking in shallow water or while holding onto the side of the pool until that becomes commonplace. This should be continued by taking somewhat bolder steps each time until the fear is gone. One should not try to rush it or to learn too fast. That, in general, is the method to use in overcoming all fears in athletics. The beginner should practice some simple part of the feared act until it is learned, then a little more until each more complicated step is learned well. By all means he should avoid going so rapidly that failure results, for the shock of failure provides a basis of fear. After the parts of a feared act are well learned, then the whole act can be tried safely under favorable conditions. After that it can be used in its regular setting. Those who

fear need not fear if they will take the time to do the necessary careful practicing to become familiar with the various parts of the task or situation that cause this feeling of fear.

Leadership

Many an ordinary team has been changed to an excellent team because of an outstanding leader, and many an otherwise strong team has turned out to be ordinary because of the lack of a good leader. Every team that has performed well consistently has had one or more competent leaders on it. A coach cannot go onto the field, court, or diamond and play with or direct the boys in their game. He must depend upon some boy or boys to lead. Since leadership is of major importance, those in charge of sports make a definite effort to develop leaders. The boy who wishes to be an athlete naturally wants to be a leader and must practice to be one. Leaders are not only born to lead, they are also trained to lead, trained by the experiences they have had. These experiences may be the result of accidents or the outcome of events that just happen in their lives, or they may be due to a well-worked-out plan which is followed successfully. If the training is left to chance, some of those who lead will be just and able, but many will not. An intelligent approach to the development of leadership demands that a planned course of action be followed and that the haphazard training that comes just by chance be greatly assisted by education for leadership.

The individual athlete should know that he will be more likely to make the team and will be worth more to it when he does make it if he develops leadership. How can he do so? First he must realize that responsibility must go along with authority. That means that the leader is not just some one to tell others what to do and when to do it, but is also one who is willing to serve and do the hard and disagreeable tasks. A good leader needs to offer both precept and example. This recalls a very successful club leader who worked hard to make his club succeed. He stayed after meetings and helped clean up the club rooms and wash the dishes. He spent extra time typing out instructions for the articles the members were making. He looked up and prepared materials needed to play the games. He read about how to do

things and explained them to others when they asked. He made himself so useful that the other members would follow him enthusiastically, for they knew his heart was in his work. He lead predominantly by taking responsibility instead of by showing authority. The same principle works in sports. The leader needs to do some of the hard, unpleasant tasks if he is to have unanimous support of the squad members. In baseball he should take his turn in the field as well as at the bat during batting practice; he should participate enthusiastically in sliding practice instead of trying to avoid it, since he can slide pretty well anyhow. It will do him good to chase some of the foul balls and do other routine tasks. Service is one road to leadership that many successful leaders follow. In the second place, he must learn to perform the skills well. Others are inclined to follow those who know how to play the game. Very often this is the chief basis upon which leaders are selected, but there are outstanding exceptions; it is not always the all-American on the team who is the captain or leader. In the third place, he must learn how to get along with the rest of the squad. This is a difficult lesson to learn, so difficult in fact that many boys never learn it. The habit of giving the other fellow the benefit of the doubt is an important step in getting along with others. It helps to accept responsibility for one's own misplays instead of trying to blame others. In the fourth place, the leader must develop poise and confidence. To develop poise he should look the other fellow in the eye when talking to him, avoid making excuses or offering alibis, take his time when talking to others (hurrying has destroyed much poise), and *know what he is talking about* before he speaks up. Then, too, the leader must have courage; he must not give up when the going gets tough; he must keep on trying and encouraging others to try to the end. His enthusiasm must not die when the team gets behind. Real leaders try to make the best of a bad situation; they never quit.

Sportsmanship

Sportsmanship is the practice of treating the other fellow the way you would like to have him treat you. *Although outstanding improvements have been made in the development of strategy and skill in sports in the past fifty years, proba-

bly still greater improvement has been made in sportsmanship, among players as well as among spectators. This statement is made despite the fact that sportsmanship is nothing to boast about even today.* By the way of comparing present-day sportsmanship with that of the past, let us illustrate with a few examples.

Less than forty years ago in a small town in the Middle West one of the downtown coaches came into the high school dressing room and spent about twenty minutes just before a football game trying to show the boys of one team how they could "lay out" the two good players on the opposing team. This may not have been an uncommon practice, for the coach permitted him to do it. Today almost any coach would throw such a fellow out. From 1910 to 1920 or later actual fist fights over choose-up basketball games in college were not uncommon enough to be news. Today a fist fight over a choose-up game is very rare, and if it does happen most of the players consider it unfortunate. One of the unsportsmanlike practices of other years that has now been pretty generally stopped is that of meeting some member from the opposing team under the stands or outside after the game and fighting it out. There are fewer actual fights during interscholastic and intercollegiate games now than formerly, although there still are some. Those who watched baseball fifty years ago could show marked contrast in behavior toward competitors between then and now.

This improvement in sportsmanship among the players is not due to inherently better stock. The stock is the same, with the same urges to do battle, but the training is better. High-school girls are now poorer sports in competition than high-school boys *in competition*, not around home, for there girls are generally better sports than boys. Why are girls poorer sports in competition? *Simply because they have had less training or practice in sportsmanship in the heat of battle.* The good sportsman, as the leader, is trained, not born that way. If we choose to watch small boys at play, we will still see many of their games break up because of disagreement over something or other. This happens because they have not had enough experience in sportsmanship.

Before considering the matter of how to build sportsmanship, let us consider the question, of what value to the ath-

lete is sportsmanship anyway? One value of sportsmanship to all athletes is that it makes the games safer for all. Dirty play is a result of poor sportsmanship, and the poor sports as well as others are more likely to get hurt if the play is dirty. If the poor sport starts it and keeps it up, some opponent or group of opponents will try to finish it and sooner or later will succeed. *Numerous severe injuries are due to poor sportsmanship that results in dirty play. Besides being more safe, it is much more pleasant to be a good sportsman. True sportsmanship can keep a hard-fought game on a gentleman's level. This not only makes playing more enjoyable but leaves one with a greater feeling of satisfaction when the game is over. Sportsmanship gains more recognition for the player. When all-conference, all-tournament and other "all" teams are selected, if two boys are about equal in playing ability and the one is a good sportsman while the other is not, the good sport will generally be selected over the other fellow. Those who are familiar with conference players and all-conference selections over a period of a few years have little difficulty pointing out a player who would have made all-conference had he displayed better conduct on the field of play. The greatest gain that comes to one through practicing fair and considerate play is the development of a desirable social habit which he may use in similar situations all through life. Even though one cannot carry over into all life situations the desirable habits he develops in games, he can carry them over into some other life situations that are similar.

Competent adult leadership is a prime essential in the development of fair and considerate play in a short period of time, but this leadership is not always available. Consequently many players find it necessary to work out their own system of learning sportsmanship as they develop their skills and techniques of play. But development of sportsmanship without competent guidance takes time and effort, for many have strong urges during competition to do all that they can to conquer or handicap the opposition. It is very difficult for players to educate themselves so that they can play their hardest to win within the rules and still refrain from taking advantages beyond the rules. If one wishes to try to be a good sport, he must first know the rules in order that he will be able to distinguish fair from unfair play. Then be-

fore he starts to play the game he should resolve that he will play fair even if he thinks the other fellow does not. That is very hard to do, and experienced players often fail under the pressure of circumstances. Once he is in the game, the player must check up on himself occasionally to see that he keeps his promise. After the game he should have an accounting with himself to find wherein he succeeded and wherein he failed, and to plan how he can do better the next time. Actually many players do this, but they do it more or less without a conscious effort, and some never check up on themselves. For that reason it takes those who are not guided in their play much longer to learn fair play, and without guidance some learn, instead, to be poor sportsmen. Early training in fair play makes fair practice in sports come more easily.

Cooperation

All who have played choose-up baseball on the sand lot are familiar with the early lack of cooperation among players in those contests. They can readily recall how nearly everyone wanted to bat or pitch, some were satisfied with catching, and a few were content at first base; most of the other infielders had to be coaxed into playing those positions and then did so reluctantly. Only the little and inexperienced boys could be forced to play in the outfield. The owners of the ball and bat got to play about where they pleased a good share of the time or they took their equipment and went home. Early playground basketball games show the same level of cooperation. Everyone wants to shoot and dribble, for it is much more fun to shoot and make a basket occasionally than to throw the ball to someone else and let him make the basket. In dribbling one has a chance to keep the ball, while in passing someone else gets it so that he may dribble or shoot. People start out as essentially selfish beings, and many want to do largely the things that give promise of bringing to them what they want. "Mine" is a very important part of a small child's vocabulary. As he gets older and has more dealings with others, the harsh necessity of many situations teaches him that he must give the other fellow what he wants a part of the time if he expects him to give in return; thus he learns gradually to get along with others.

This lesson in cooperation seems most difficult to learn, probably because players expect an immediate return of the favors extended. In the basketball game mentioned above, if *A* passes to *B* and then *B* passes to *C*, who makes the basket, when *A* expected *B* to pass back to him, *A* loses some faith in the idea of cooperation. The fact that *C* may have been the logical man to receive the next pass does not help much if *A* thought he should have got the ball back from *B*. The same problem presents itself to the blocker in football who takes out the opposition while his teammate carries the ball for a touchdown, only to find that the write-up of the game gives the ball carrier lavish praise but fails to mention the blocker. So many problems of this type occur on athletic teams that many otherwise good teams are wrecked through lack of cooperation. It is only when some larger goal than self-recognition dominates a squad that cooperation replaces the strong selfish desire to receive individual praise and renown.

Every coach strives hard to build up a spirit of cooperation among his squad members, for he knows that without it he cannot win from teams that are the equal of his teams, and he knows further than an ordinary team that will cooperate can defeat a potentially much stronger team that will not pull together. This is one of the most difficult problems in coaching, for the desire to gain recognition and to do things with the ball is often more powerful than is the desire to work together for a common goal, especially if some other fellow gets credit for what happens. Knowing that this is true, football coaches make a special effort to give public credit to linemen and backfield blockers who do much of the hard work and get but scant public praise for it, since most fans follow the ball rather than the blocking for the play.

What can the individual athlete do to learn cooperation and to convince himself of its value to him? He can set as his major goal the success of the entire team and then do all within his power to make it succeed. Whether it succeeds or fails, he can analyze the game played and note the opportunities to cooperate that were used and also those that were missed, and try to improve by taking advantage of them the next time. He can give the other fellow credit by telling him about the good plays he makes and by patting him on the

back. He can accept responsibility for his own misplays. If he does all this, he will be agreeably surprised at the end of the season to find that the team, and he as well, will receive more recognition than would have been the case had he tried to be a "star" playing to the grandstand. This should convince him that cooperation is worth-while to him. Too many athletes never actually learn the value of a season's play of consistent cooperation, for they let other smaller motives interfere to the extent that cooperation fails to get a full season's trial. Loyalty to the team to the extent that petty ambitions and jealousies are discarded in favor of the greater goal of team success is essential to real cooperation; that is, to the kind of cooperation that causes each player to sacrifice when the time comes in order that the whole group may gain its end. A high percentage of selfish players on a team defeats this aim almost before practice starts, unless by some fortunate circumstance or outstanding coaching they can be taught to overcome their selfishness. It is difficult to build a great team out of selfish players.

Self-Control

This important social trait needs to be watched as much by those who are succeeding as by those who are failing or being frustrated. The winner has as much need to practice self-control as the loser. Arrogance and boasting over victories by the winner are likely not only to make those who are defeated lose part of their self-control, but are, at the same time, evidence of the lack of it in those who boast. It is extremely difficult for inexperienced winners to take their victories in stride or with restraint. Practice and guidance in accepting victory and success in correct proportion are essential to becoming a good winner. Modesty in victory is a goal very much worth trying for. It is one of the best evidences of progress in gaining emotional control.

Most people realize more clearly their lack of self-control when things go wrong than when they go right. Athletic competition presents many situations that try one's control, for there are many times when complex problems cause players to want to express strong emotions of anger

against some other competitor in the game. If, in a close football game, an opposing lineman holds the defending tackle on fourth down with goal to go, and because of that holding a touchdown is scored by the opposition, and if that touchdown wins the game, the officials do not see the holding, and the man who committed the foul says, "What's the matter—can't you get around as well as you used to any more?" then that defending tackle will naturally be under severe strain and will have a hard time to keep from doing bodily injury to the opponent. Even under such stress he will probably control himself if he has had much athletic experience, for game situations provide an excellent laboratory for teaching self-control. Feelings are intense; there is marked action; there are rules or laws, violations of which, if detected, are punished immediately according to their severity; and through it all the player is taught to act according to the accepted pattern of conduct. Should he be unable to control himself, he will be banished from that game and possibly the next game as well. Besides that, accounts of the game will probably refer to his mistake in such a way as to make him feel sorry that he violated the code, and those present will remember to his discomfort the way he acted. This combination of influences or forces encourages one to control the outward expression of his emotions and penalizes him if he fails. In the presence of intense action, strong encouragement to follow the proper pattern provides an excellent situation wherein one can develop self-control.

What can the individual do on his own to develop self-control? He can develop the idea and attitude that it is worth trying to gain. Many athletes have hardly given the matter any consideration. Some, by the chances of circumstances, develop excellent control, and some develop a tendency to "blow up." Many of those who blow up without much provocation could train themselves not to do so if they thought the matter out and put on a campaign to control themselves. After putting on the campaign, it is necessary to have check-up periods during which one faces the facts frankly, analyzes difficulties, and gains new enthusiasm to continue the campaign. Since those in charge of sports make definite plans and set up situations accordingly which provide means of teaching self-control, players under competent supervision develop much better control than do those who play without

supervision. However, all play on their own at times and it is on such occasions especially that the individual needs to assume responsibility for his own conduct, and possibly to check up now and then after the heat of the battle on the attitudes he displayed.

Sociability

Those who compete in athletics have many opportunities to make friends. In times past athletic friendships were limited almost entirely to members on one's own team, for the opposing players were considered enemies and treated as such. The viewpoint in too many cases seemed to be that any group that had the audacity to assume that it could beat one's team was necessarily against him and consequently its members were no friends of his. The obvious fact that competitors were necessary if games were to be played at all was often overlooked in the emotional excitement leading up to, during, and following the contest. Then too, the defeated players did not feel like being sociable; they felt more like fighting, for they had not had much experience in accepting the fact that the battle is over when the game itself ends. Much progress has been made in developing better attitudes toward opposing players. It is not uncommon now for the host school to have a social hour after games at which visiting players, coaches, and managers are guests. Still more common is the school dance after the game to which the visiting players and students are invited. These social affairs are often planned and conducted so that the visiting students meet the home students in an atmosphere that helps banish the feelings of rivalry of a few hours before. In some regions of old and intense rivalry, community groups from the two towns hold a banquet at the close of the season which the supporters of the teams finance and the team members attend as guests. Here followers and players of one group meet those of the other group and learn to know that there are many good fellows on each side. Then it is less difficult to have each community do its best to win the game, and still respect and be friends of the other when the contest is over. The athlete should make a definite effort to make friends of those against whom he plays, for success in life, measured in terms of recognition, service, wealth, influence, happiness, or almost any other yardstick, depends in part upon friends.

Even though more friends are to be found among the opposition than formerly, still most of one's real pals are likely to be members of his own team. Those who play hard together and enjoy the thrills of triumph and suffer the depressions of defeat with each other are drawn together by loyalty to a common cause. And because of the loyalty and close personal contacts under intense situations, many lasting friendships are made. The player who does not make some friends through his seasons of competition has missed much that sports offer. Studies of the success of athletes and non-athletes from the same schools tend to show that the athletes are more successful than the nonathletes in later life. Although the evidence does not show just why this is true, it is probably due in part to the fact that they have learned more about getting on with people and have made more social contacts than have many of the other students in their classes.

How then, can one improve his sociability, or his ability to make friends? Some very good and thorough books have been written on this topic, and many of the points stressed in them can be practiced in activity situations. Briefly, these few reminders are included for those who have difficulty in working out methods of being sociable. *The player should try to be a friend.* That is, he should treat the other fellow as though he amounts to something, find opportunities to exchange a word of greeting occasionally, be interested in his problems, do him a favor now and then, be loyal to him, give him a word of praise for a good play; and he should refrain from telling him what to do, from imposing upon him, from rushing him off his feet, from dominating him, and from saying unkind things about him. He should not boast about himself. He might well use the above suggestions with others that he may add, and thus prepare for himself a checklist of things to do and things not to do. Then the list can be used occasionally to check up on himself and his attitudes toward others. If he has failed in some point he can give it special consideration the next time.

Thus, he can learn to be sociable and to make friends in connection with his athletic activities. Most people who wish that they were more sociable could be if they would try to be. Many an athlete who would not even think that he could be a good ball player without practice may be surprised at the idea that he needs to practice being sociable in order to develop a friendly attitude. He should not be surprised, though, for attitudes, just as skills, are the products of practice. Here, as in other things, perhaps here especially, he learns to do by doing.

Chapter IV

FOOTBALL

History of Football

Football, of a sort, goes back to ancient times. The Romans played a kicking game which was a first cousin to soccer. A mass game of football with as much as a whole town on one side was popular in England hundreds of years ago. In fact, one English king put a ban on football because it interfered with the practice of archery, which in those days was a useful military skill. This early English game evolved into Rugby football, the forerunner of our present American game. The first organized school contest in America was played between Princeton and Rutgers on Nov. 6, 1869. Rutgers won, six goals to four. There was a considerable development of the game in colleges and athletic clubs in the next twenty years, and by 1890 the game was well established in the East. Shortly after this time, football developed in other sections of the country, in colleges first and then in the high schools. There have been many variations in the game (the size of the field, the values of scoring, etc.). In 1906 the forward pass was introduced. In 1912 the field was standardized at 100 yards. Some restrictions on the forward pass were removed, and the value of the touchdown was set at 6 points. This is essentially the framework of the game as it is today. The rules are not fixed, and there is constant effort each year to improve the game and to make it safer for the players. American football is not played much outside of this country. Soccer and Rugby are popular in some other lands.

Many famous men are associated with the game. A. A. Stagg outstanding as a coach and player, coached the game for more than fifty years. Walter Camp, recognized for many years as the official selector of all-American teams, was an outstanding early player who contributed much to the game. Every schoolboy knows of Knute Rockne, the celebrated Notre Dame coach; of Howard Jones, outstanding coach at Yale, Iowa, and Southern California. Pop Warner

of Carlisle and Stanford; Fielding Yost of Michigan; Dr. Harry Williams of Minnesota; and Dan McGugin of Vanderbilt are famous. There are many other coaches who merit mention, but space forbids. A list of players who have earned recognition as among the best would include Jim Thorpe, famous Indian athlete; Walter Eckersall of Chicago, who never weighed as much as 150 pounds as a competitor; "Pudge" Hefflefinger of Yale; Brickley of Harvard; Heston, Osterbaan, and Friedman of Michigan; Poe of Princeton; Edwards of Washington State; Aldrich of T. C. U.; Nagurski of Minnesota; Nevers of Stanford; Gipp of Notre Dame; Devine and Kinnick of Iowa; White of Colorado; Blanchard of Army; and Howell and Hutson of Alabama. There have been many other great players over the years. There will, of course, be others equally as good.

PLAYER QUALIFICATIONS

Physical Assets Needed

In considering what it takes to be a football player, one must take account of a number of things besides knowing the game. Let us group these under physical assets, character assets, and mental assets. Consider the physical assets first. The authors have in mind numerous coaches' judgment as well as personal observations and experience in preparatory school and college coaching.

Strength gives the player a big advantage in football. There is a lot of body contact. It helps to be the stronger when hitting another player or being hit in blocking or tackling. A strong stiff-arm is hard to break through; a strong man charges harder in the line. If there is contact on a pass play, strength is an advantage. The strong fullback gets that needed extra yard; the strong man is a more effective blocker; the strong man protects himself better at such vulnerable points as the tip of the shoulder and the knee, two common injury spots in football. Strength will usually show at first glance through what coaches call "good legs."

Most coaches and some fans have an appreciation of the differences between size and strength. They are far from being the same thing. Strength is not measured on weighing scales. Extra weight is an advantage, too, so long as it

is movable. The good big man is better than the good little man. Fat is a handicap since it shortens wind, makes the player slow and awkward, and puts excessive pressure on joints, thereby inviting injuries. Extra weight in the form of muscle is good. It is good practice to build up but not to fatten up just to weigh more.

Sometimes players grow so rapidly that the strength of their heart and skeletal muscles cannot keep pace. There is a difference between growth and development. These boys cannot expect to do much in strenuous sports for a year or two until they develop, even though they look big and may weigh as much as those much older. A 14-year-old hardly ever is a match for a 17-year-old of the same size. Attempts to keep up with older boys may be dangerous. Full-scale football has little place in junior high schools for this reason. A boy may receive a heart or joint injury that will be a permanent handicap to his athletic career and to his future fitness, by overdoing during this period.

Speed is a great asset in all team sports. This applies to football as well as to other games where the importance of speed is more obvious to the spectators. There is some variation in positions, however. A tackle or offensive center may be slow and still do a good job, but a halfback, an end, or an offensive guard is badly handicapped by lack of speed. Speed, and stamina enough to use it, are needed by all players if the team is to cover the field and follow the ball as it should to recover fumbles, protect against interceptions, and so on. Many times there is only a difference of one step in the play that makes a touchdown and the play that is thrown for a loss. Speed is a great aid both to offense and defense, especially pass defense.

Height is an advantage in some phases of the game, but not at the sacrifice of ruggedness. Rangy ends, halfbacks, and tackles are desirable. The tall man has the advantage in receiving passes or in defending against passes. A tackle with a good reach may occasionally get a man or block a kick that would otherwise be missed, but height is of far less importance than either speed or strength.

In any team game the ability to keep going at high speed keeps pressure on the opponents and is of tremendous im-

portance. Many athletes lose sight of this fact and do not even realize that they loaf and let the team "carry" them part of the time. Endurance or staying power depends in part upon such natural gifts as a slow beat of the heart, large breathing capacity, and good muscular coordination. But primarily it depends upon conscientious training. This matter is covered in more detail in Chapter I.

Last of the important physical gifts is muscular coordination. This is a big factor in making the "natural" athlete. It is just the opposite of being awkward. The man who has it learns new skills easily and so *can* make more rapid progress. He may not have the necessary ambition or determination to do so. What is needed on the football team is players not only who *can* do it but also who *will* do it. Faithful practice will do much to make up for lack of natural coordination.

Character Traits Needed

This brings us to a consideration of character traits needed in football. No sport places a greater premium upon fighting spirit. The winner in this sport must have the *fire* and the *determination* for long hours of practice, and for the full playing time of each game. The real player does not give up because of a bad break or because his team gets behind. He is aggressive and expects to win. He has the will to win. A winner will not quit. These traits are in such demand for success in life that football becomes an excellent laboratory for character development.

The football player requires courage and must not be afraid of body contact. Any player can develop this trait, but a few fail to do so through lack of similar experience or unsuccessful experience which may have resulted in injury. One should learn the game with boys his own age to reduce chances of injury and to develop confidence.

The football player must learn to work with other players and his coach. Some players spoil their chances by not taking coaching. Football is a team game and one must cooperate to succeed. He cannot be a law to himself. He must work for the good of the team above personal glory. The

curious fact is that by so doing he is more likely to get personal recognition through the success of the team. He must listen to the advice of his coach and try to do what he is told for two reasons: (1) the coach knows more about the game than the players; and (2) the coach must organize the team. A man cannot hope to succeed who runs an off-tackle play when the rest of the team is trying a mouse-trap on the guard. But such lack of teamwork still comes up every now and then in games.

Mental Traits Needed

Failure to learn the plays is more often due to lack of study than to lack of brains. But to be effective the player needs sufficient gray matter to learn the signals and to have a fair understanding of the rules. Most failures again are due more to laziness than to stupidity. Many players perform below par because they are not alert to the situation on the field (the number of downs remaining, the distance to go, the time left in the half). It is imperative that the player keep awake and not be mentally sluggish. There is plenty of opportunity for him to use his head in a football game. The winner does so.

A good football player is a pretty fair actor. This does not mean he may have a career in Hollywood, but he must conceal his intentions in order not to give the play away. He should not look where the play is going, show that he will take the ball, point in that direction, or lick his fingers only when passing, to name a few mistakes. Sharp players on defense notice these "telegraphed" plays.

Last, the football player must have enough self-control that he does not get so excited that he fumbles, gets off side repeatedly, or loses his temper. He must learn to do the job under pressure, to get ready to make the drop kick that will win the game, or to hold opponents on their final try for a touchdown. Practice does not make perfect in all these things but it is a great help. It is one of the main reasons why a green player learns so much more in a game than in a practice session. With other things anywhere nearly equal the smart team always wins because of fewer costly mistakes.

OFFENSIVE FUNDAMENTALS

Blocking

Fundamental offensive skills begin with blocking. This is by far the most important thing to learn about offense. The shoulder block is most natural and most widely used. Feet should be well spread (one should run a "double track" with short steps), knees bent, hips low, back straight, eyes and head up and neck set. The weight is on the balls of the feet. There is no slack to take up. The head should not be ducked; this leads to neck injuries. The block is a hit-and-lift. The blocker should eye the spot to be hit and get contact close to the base of the neck rather than out on the point of the shoulder. He should keep on charging with shoulders level and not leave his feet. As he hits, he should lift up and try to throw the man over his shoulder. *It is essential for the blocker to hit the opponent harder than he hits the blocker.* Incidentally, the above position is good for the start of a tackle as well as blocking and charging. If a player learns to use it well, the coach will have a place for him on the team.

The rolling or spike block is not so much a matter of smashing through a man as it is of cutting under him and tripping him up. The player hits the ground just at the opponent's shoe tops, stretches out, and keeps rolling. He should not take off from a distance or the defensive man will have a chance to side-step or step over. He should not hesitate and come in on hands and knees. This will lead to injury from knees in the side. He should get down low out of harm's way, flatten out, and keep spinning. This block requires careful timing and coordination. It is used effectively by the small man since the premium is on form rather than power. Protective rib pads are desirable for those who use it. It can be used as a tackle. There are many other types of blocks, but it is better to take one and learn it well than to have learned several halfway and use none effectively.

Passing

A second important offensive fundamental is passing. This, like ancient Gaul, is divided into three parts: the forward pass, the lateral pass, and the center pass.

A good forward passer, something of a rarity, is a great asset to an offense. It seems to be more of a natural than an acquired gift. However there are a number of things a passer may do to improve. First, he must learn to dodge. A rushing lineman may often be side-stepped and the pass completed. A lot of scrimmage practice helps this. Second, he should learn to fake. A cross-eyed passer may fool the opposition. At any rate, the passer avoids looking directly at the receiver and nowhere else. Third, he should learn to peg rather than whip the throw; to pass from the ear, not give a full-arm throw. The ball starts more quickly, is not "telegraphed" so much, and therefore is not blocked so often. The grip pass is much more widely used than the palm or nongrip pass. The latter may be better when the ball is slippery and heavy on a rainy day. Most beginners try to grip the ball too near the center. It is better to grip it farther back toward the end. The first finger may even come over the point of the ball. The passer should follow through, letting the hand go with the ball and thus avoiding a less accurate, jerky delivery. He should cover his pass; that is, after the throw he should go toward the side line toward which he has passed to prevent interception touchdowns. Finally, he should pass where the man is going to be, not where he is. It is difficult for green passers to learn to pass soon enough and to give the receiver sufficient lead. The cardinal sin is to pass short. These passes are the ones intercepted most easily. On the other hand, the throws that are too long are usually only incomplete. The ideal pass is taken high by the receiver who is in full stride.

There have been as many teams getting into trouble with lateral passes as getting touchdowns from them in the past few years. These are the passes thrown sideward. They may legally be used anywhere. Still, the lateral pass has a place in offense. One of the most effective uses has been in coming off defense after a pass interception or in other open-field situations beyond the line of scrimmage. Unless some distance is required, as to the wide man in man-in-motion plays, a two-handed pass without a spiral is probably most accurate. A shoulder pass is better than underhanded since the tackler coming in may grab an arm on the underhand delivery and cause a fumble. The passer must be prepared to take some punishment, since if he passes soon

enough to avoid a tackle, the tackler may veer off and take the man with the ball. Five to 8 yards apart is a good lateral pass distance. The play should be set up to be thrown a yard or more backward to avoid penalties for an illegal forward pass. This means the receiver will be about 5 yards behind the passer while running if both are headed downfield. Finally, a trailer should follow, if possible, to pick up fumbles which he may recover and advance. All lateral pass fumbles are free to be recovered by either side.

The center pass most widely used in direct pass systems is essentially an upside-down forward pass. It is made primarily with one hand. The other is used to guide the ball. The center needs a fairly wide stance, one foot about 12 inches ahead of the other. In unbalanced formations a good many passes will be toward the strong side. If the foot on this side is forward, there is more room to pass. If he comes up on his toes, he has a bigger arch to pass through. His primary duty is to get off a good pass. Blocking assignments are usually lighter than for other linemen. Accuracy and proper speed of the center pass are most important to the offense. Nothing makes a backfield shakier or spoils timing more quickly than erratic passes from center which the back cannot depend upon and may have to "field" before the play can start. Centers should practice by the hour both at targets such as a suspended auto tire and with the backs with whom they will work. It takes some time for a good center and good back to adjust to each other. The center should give the back the lead, the height, and the speed of pass that he can handle best. The pass may be waist high, even lower for a spinner play. To a kicker the pass should be hard, but it should be soft on fullback plays. There should be a lead to the side on wide plays. Practice must include work with a wet, heavy ball. In rainy day games the center should use resin on his hands and dry the ball as much as possible—especially before kicks. Just before passing the center should glance up to locate the opponent's feet since he must look back when passing. If it is an indirect play (quarterback takes it direct from center's hands), the center may look up and pass blind. Some "T" formation centers pass with only one hand. They must master direct passes also for punts and placekicks.

Ball Handling

Several points need emphasis in ball handling. Good ball handling is the kind that avoids fumbles, and, if deception is called for, hides the ball as much as possible. The first essential in good ball handling is a good pass from center (proper speed and the right place). The back should watch the ball all the way into his hands. Spinner and reverse plays require a lot of practice for proper timing. There must be good faking, clean handling of the ball, and no body contact. The pass may be hand-to-hand or the receiver may fold the ball in his arms as it is laid against his abdomen. Elbows are bent and the inside elbow is raised to receive the ball. *The ball carrier should keep both ends of the ball covered.* This may be done with two hands as in the fullback play, or with one in the open by palming the front end and holding the other end in the armpit. The ball may be shifted from one arm to the other by grasping the rear point of the ball with the opposite hand and sliding across the front of the body. The ball is thus protected all the way. The ball should not turn end-over-end in the exchange or it may be fumbled if the carrier is tackled. The ball should be carried in the outside arm so that the inside arm is free for stiff-arming. To avoid fumbles upon being tackled some coaches advise never shifting the ball. Both hands should be on the ball as the man falls. The ball carrier should pull up the knees and fall on the side, making a pocket for the ball, and not spread-eagle on the face with the ball underneath, for he is more likely to be hurt in this latter position and also more likely to lose the ball. In the same way, and for the same reasons, the player should "cup" around it when falling on a loose ball, and slide in on the hip rather than face down.

Kicking

It is a little difficult to catalog all kicks as to offense and defense. There are two definitely offensive kicking situations. The first is the drop or place kick used for field goals or (principally) points after touchdown. The second is the onside kick which is a short kick-off to be recovered by the kicking team. Place kicks are more widely used than drop kicks since a fair amount of accuracy can be gained with

less practice. If the drop kick is as accurate it is better to use because there is one more man to help in blocking. Further, the drop kicker can practice alone, while the place kick practice must always get the holder and kicker together first. A summer's practice drop-kicking will often pay big dividends. A fairly sure drop kicker can be sure of a letter. This is an especially good opportunity for the man who may be too small for the team or otherwise physically handicapped. A sure drop kicker for points after touchdown can make a lot of difference in games won during the season. The same, of course, is true of place kicking. No phase of football is more neglected, or less developed. Long hours of practice are needed for success. Form rather than power is needed.

The on side kick is used on the kickoff, or may be used after a safety or fair catch. After the ball has gone ten yards the kicking side may recover it. It gives a big yardage advantage if it works. The usual try is kicked diagonally across the ten-yard restraining zone toward fast men charging down on it. It is surprisingly effective if it is a surprise play to opponents.

Timing

Timing is not always included among offensive fundamentals, but it is of great importance to the offense. A properly timed play has everyone at the right place at the right time. Long periods of intelligent practice are needed to smooth out the errors. Especially do the backs and center need to work together on this. These skeleton drills will pay good dividends. Good timing begins with good passes from center, and even proper starting so that no one is off side or illegally in motion. Long practice is needed, especially on reverses, fakes, and similar ball handling plays. Ball carriers should run at full speed, for those who don't really run never get far. A team should not have more plays than it can run smoothly, even though this restriction limits it to six or eight running plays. Plays must be properly designed so that timing will be effective and not too difficult. There should be a cycle of plays which start alike and help to set each other up.

DEFENSIVE FUNDAMENTALS

Tackling

Fundamental defensive skills center on tackling. Eleven good tacklers make a team that is hard to score on. "A good offense is the best defense" is not always adequate but has some merit. So has the reverse of this old saying. A good strong defense does not put so much burden on the offense. Recover a fumble, score once and the game is won if the defense is really potent. Michigan teams through the years had notable success with this "punt, pass and prayer" system emphasizing strong defense.

Most tackling is from the front or the side. The form is similar to shoulder blocking except for the use of the arms and hands. The feet should be spread, the hips down, the back straight, the eyes up, the arms extended forward on contact, and the neck set. Contact should be on the shoulder at the base of the neck, with the tackler driving on through, whipping the arms around the opponent's legs. It is best to eye the thigh, to try to hit there, and to tackle waist high on the small man who is clever at dodging. *The tackler must drive in and hit the opponent* not be hit by him. From the side it is better to carry the head back of the runner's legs to avoid injury. A man should not tackle straight from the front if the runner has room to dodge in open field but should try to come in at an angle so that the runner has less chance to fake than from straight on. One should not shut the eyes. "Eyes open and head up" is both a safer and a more effective rule. The tackler should not dive but keep the feet driving. He should not "feel" or reach for the runner but drive in and get shoulder contact, then wrap his arms around and hold on for dear life. He should try to grasp his own wrist. *In tackling, as in blocking, the big half is determination.* There are various other methods of tackling, such as the rolling chest tackle and hook tackle. The spike block may be used as a tackle too, but again it is far more effective to use one form well than to play around with several and never master any of them. A straight shoulder tackle is the easiest for most players to learn.

Use of Hands

The rules permit the defense use of the hands. Not to use them imposes a big handicap on the defense, where seven or eight men must stop the charge of eleven because of the tactical disadvantage of the defense. This is about the greatest number of defensive men that can take an effective part in a play. For example, in the case of an end run, the opponents' end, tackle, and halfback on the opposite side away from the play hardly get in on the tackle. Usually the safety does not. This leaves eleven men on seven. On a quarterback sneak the two guards are the only linemen blocked—again eleven men on seven. The seven must use their hands to have an equal chance. The defense must control the offensive man. This includes stopping his charge with hands on head or shoulders, staying low and keeping him from contact with the legs, keeping free to make the tackle, not tying up or wrestling with offensive linemen, and beating the offense to the charge. While this applies primarily in the line, the backs should also learn to use the hands. They should sidestep and push blockers off, and try not to let the offensive get to their legs.

Punting

Punting comes from an offensive setting, but is really a defensive maneuver to get the ball downfield out of more dangerous territory. It is the most important single play a team has. Success depends not only upon the kicker but upon adequate blocking from the rest of the team and upon men getting downfield fast to make the tackle. Punting is an important individual skill, requiring considerable practice and good balance. The ball should be held well away from the body (one arm straight) and dropped level; the instep should be swung into it following a step and one-half. The first short step is with the kicking foot. The punter should be 10 to 12 yards back of the line. The ball should get away within two seconds. The more height on the punt the better, as the ends will have more time to run downfield. The punter should kick low into the wind. Elevation is decreased by lowering the nose of the ball. Practice pays big dividends in football success. Only an occasional punter learns to really control the ball.

A quick kick is a surprise maneuver from regular running formation, that is intended to get the ball over the safety's head and to make it roll forward on the ground. It is used when the safety comes in close and is best on first or second down. It should be kept low to prevent the safety from running back to make the catch in the air, and kicked so that it will roll forward when it hits. It is usually executed from a rocker step. The kicker should step back with opposite of the kicking foot, forward with the same foot, and kick. Some men must go down fast to make the tackle. The quick kick is not likely to be good more than once or twice in a game. It should go for more distance than ordinary punts. Well executed, it is an excellent way to pick up cheap yardage.

Blocking Kicks

Blocking kicks depends upon a strong charge, upon "loading" the center or left side of the offensive line with extra men, and upon various stunts like pulling linemen out of position, so that another man goes through the gap, criss-cross of defensive players, and the like. There is not space for all the details of this, but it is a very important play, and at least one special play should be worked on at length. One blocked kick is worth at least as much as four first downs in yardage, and often even more in the course of a game. Defensive ends should be alert for fake kicks, especially if it is third down on an apparent kick.

Pass Defense

Pass defense involves spoiling the play either at the throwing end or at the receiving end. A good rushing line to hurry the passer is a great help in defense against passes. "They can't pass sitting down." A hurried pass is often short and may result in an interception. Pass defense down-field depends upon individual ability and team defense to cover all receivers. The defensive player should not let his man get too close (4 or 5 yards away is a good distance). He should never let the receiver between him and his goal. When the ball is in the air the defense has as much right to it as the opponent. The defense should not worry about

illegal contact then, but go for the ball. Pushing and holding before the ball arrives constitute pass interference, but body contact with both men trying for the ball is not interference. All backs should practice catching a ball while running toward it. One should intercept the open ball and bat down the ball that may be a tie or that the receiver may get. This may be best done by going up in the air and striking down. Tall men have an advantage. Speed is another big asset. Defense must be alert all the time, ready to go for the ball as soon as it is thrown. A ball in the air belongs as much to the defense as to the offense.

Team defense against passes may be man-for-man, a zone, or a combination. Assignments that leave the safety free to play the ball are most conservative. The safety is assigned to cover the deep man on the strong side in some systems. Halfbacks may cover the deep men, while the center and fullback cover the flat and down center. On likely pass situations a five-man line leaves one more man back to protect. An end or interior lineman from a six-man line may back out to help break up passes. Any well-planned system will work provided all men are alert and there is a hard charging line rushing the passer.

The Kickoff

The kickoff is a defensive move to get the start of scrimmage, or the first down, as far from your own goal as possible. The long, high kick is the best. Everyone going down should run hard, especially the first 15 to 20 yards in the open where blockers seldom interfere. The place kicker is often the man who kicks, but he need not be. There is an advantage here for the big man, since it is power kicking. Coordination is more important. Runners should go down the field straight, not funneling in where a lateral, reverse, or other wide play may make them look bad by going around them. Going down hard on this play and making a tackle is one of the easiest ways to gain yardage. One man stays back to protect.

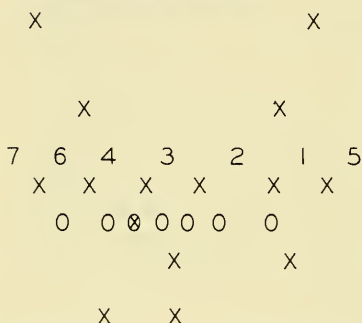
Recovering Fumbles

Recovering fumbles is of the greatest importance. There will be opportunities in almost every game. A man should

fall on the ball, not try to pick it up. This is true especially on defense, since the defense cannot advance a grounded ball. It is best to slide in on the hip or side and go around and pocket the ball, not fall flat on the face. In the latter position the ball may be lost and the player hurt in the pile-up. Most important in recovering fumbles is to be in top condition and follow the play all over the field, in order to be there when there is a loose ball to recover.

OFFENSIVE FORMATIONS

1. The Single Wing

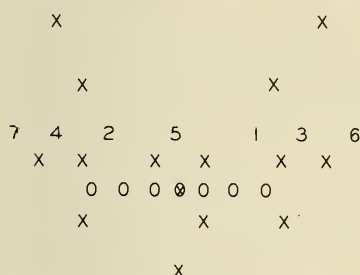


This is a popular system. It has been the most widely used of all formations. Power is stressed. The line is unbalanced, with four on one side of center, two on the other. Ends may be split a yard or in close. A wing back flanks the end. Some similar set-ups put the wing back just inside the end. One triple-threat

back and a good plunging back are needed. It is good for passing and quick kicks. Gil Dobie at Cornell made power plays off of this formation famous. By playing the fullback and tailback the same distance from the line a lot of spinner and reverse plays can be added to the formation. It is considered a weak formation to the short side. It lines up strong to either left or right, from a shift or directly from the huddle. The single wing is a power formation which often puts two men on the defensive man nearest the hole and tries for a successful play but not necessarily a touchdown every play. It is a good formation close to the goal line. Deception is increased by more use of spinner and reverse plays. Both a tailback spinner series and fullback spinners may be used. Still another possible series of plays is to have the blocking back handle the ball directly from center. This series gives much of the effect of the "T". An exceptional signal caller is needed if all these variations are to be used. These spinner variations improve the attack to the weak side, which helps to prevent the defense oversifting to the strong side.

The series with the blocking back handling the ball helps to correct the "slow" hitting of regular power plays, which exposes the ball some distance back of the line. This indirect pass cycle can be omitted where ball handling is not desired, as on a rainy day. Ball handling may be cut down through using straight plays on rainy days. Numerical rank in this and following figures indicates strength of plays from each formation.

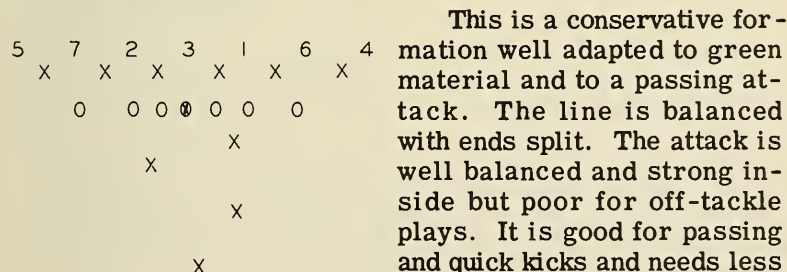
2. The Double Wing



This formation has a great many possibilities, with all sorts of reverses and spin plays possible. Either the balanced or the unbalanced line may be used. There is a strong blocking setup on both tackles, and there are strong power plays through the middle.

The formation is good for short passes. No system is better for getting four men into position quickly as pass receivers. Reverses, false reverses, and double reverses starting with fullback spinners are very good. A lot of practice is required to get the timing on plays of this type. The line must hold the defense out for wide reverses to get started. Crashing ends and a hard, charging, defensive line may cause trouble. It is too intricate a system for a green team and perhaps rather closely concentrated for good wide plays. A good fullback and two fast ball-carrying wing backs are needed. Pop Warner made this formation, sometimes called the Warner system, famous.

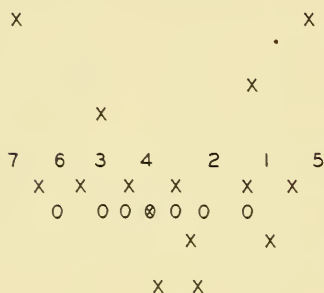
3. The Short Punt



This is a conservative formation well adapted to green material and to a passing attack. The line is balanced with ends split. The attack is well balanced and strong inside but poor for off-tackle plays. It is good for passing and quick kicks and needs less

change than any other to shift to regular kicking formation. Michigan has given the system its widest fame. This system is considered by many coaches to be the simplest and therefore the easiest to teach to an inexperienced squad. The short punt has a good balance between passing, kicking, and running strength. There is a weakness as stated in off-tackle play as regards the running game. This play is often used by a team which plans to rely on a defensive game and not show its offensive plays too frequently.

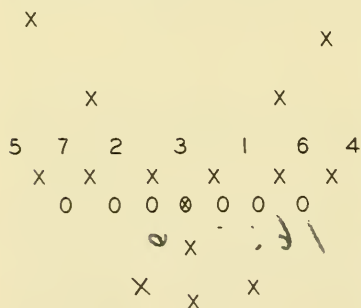
4. The Notre Dame or Box



This play involves a shift to either right or left from a "T" in the backfield and a balanced line. There is a great deal of single man-for-man blocking, trying for long gains, "a touchdown on every play." The heavy blocking assignments may cause holding. Spin plays can be run to good effect. It is a good setup for passing and quick kicks. End-around plays

vary the attack. There is a fair threat at all points of the defense. Many outstanding football teams have found this offense adequate. This formation was popularized through Knute Rockne's success with it, and is often called the Rockne system.

5. The "T"



An old formation, the "T", has been revived in recent years and popularized largely through the success enjoyed with it by Stanford under Clark Shaughnessy and by the professional Chicago Bears. These systems use a man in motion on many plays, and make considerable use of laterals. It is a wide open formation need-

ing several good "open field" backs. It puts a premium on

a good quarterback. While it is now the most widely used formation, it is still so new in this generation that it remains to be seen whether the stampede of coaches to its use has been justified by the merits of the system. A look at the strong points and weak points of the system may be in order.

Points of merit in the "T" system are these: It ranks high in deception. The players like to fool the opposition, so they like this feature. Deception holds up defense, especially line backers, momentarily. The ball is handled close to the line, so plays have the effect of hitting more quickly and less positive blocking is required than with most formations. It is an open formation which appeals to spectators. If there is a man good at faking, ball handling, and passing, the "T" makes the best use of his talents.

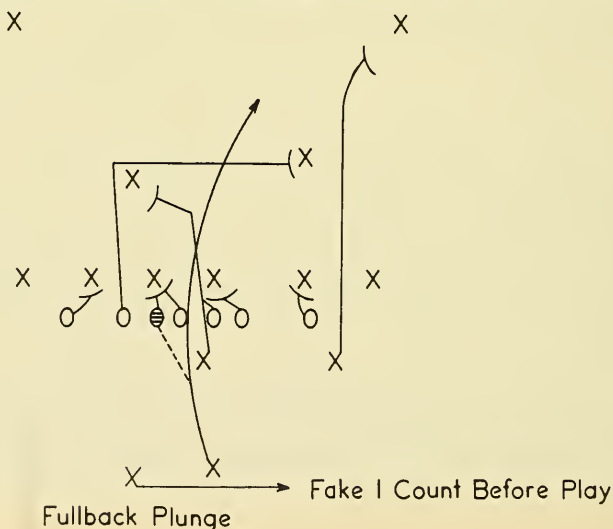
Some demerits for the "T" follow: Much ball handling makes more fumbles. Ball handling is so close to the line that a hard, charging defense creates fumbles where the ball is lost. Fumbles on the deeper, direct passes of other systems give the offense more time to recover the ball. The forward passer starts closer to the line than in other formations and is more hurried. This is especially true of "sure pass" situations. This key man takes punishment on these plays and may be hurt. If he is out of the game the offense is thrown off in timing. The "T" thus puts too many eggs in one basket. Except for deception, which makes passes and running plays look alike, the "T" is not a good passing formation. This weakness is partially corrected by putting a man in motion, but doing so weakens the running game. Like all hidden ball formations the "T" is weak on power plays, and therefore weak on scoring when close to the goal line. Players and coaches have been prone to overlook the necessity of good blocking, although more positive power blocks are coming into use with the "T". The novelty has now worn off and defense is catching up with offense. The score of the Rose Bowl game Jan. 1, 1948, Michigan 49, Southern California 0, makes the single wing look all right compared to the "T".

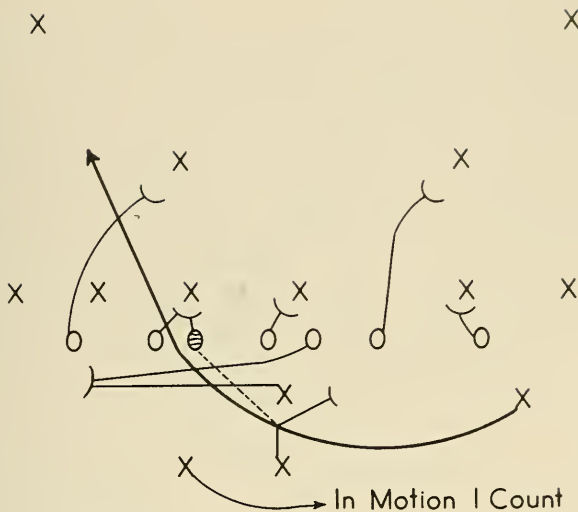
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These, of course, are not the limits of football systems. The backfield box with two men each side of center, the various spread formations, and many others are used. Most

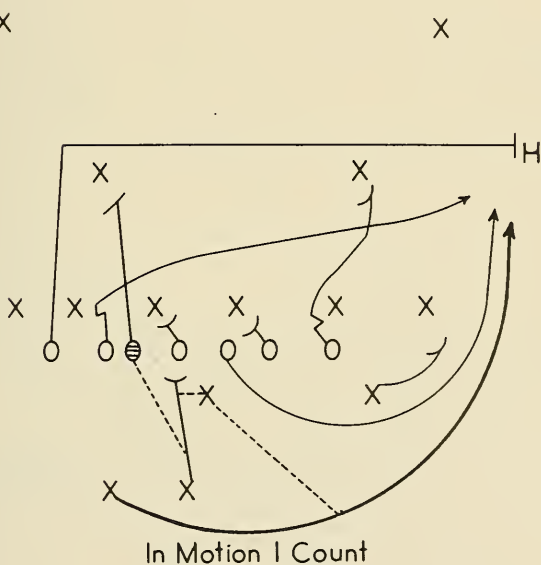
teams use variations of one sort or another in their own arrangement of the above formations. Any setup is satisfactory that has a balance of threats at different points of the defense and gives players an opportunity to use their special talents. Good players well grounded in sound, fundamental play, make almost any system work. No system has been found yet that is an adequate substitute for good blocking and other fundamentals. Unorthodox "touchdown" plays should not be counted on for much. A good power play through tackle is likely to be the best touchdown play.

A formation has a reasonable balance of threats if it can hit at various places to keep the defense from concentrating, overshifting, or otherwise getting out of place. The offense must keep it in position. For example, if there is no pass threat, the running attack may be stymied by what amounts to almost a ten-man line. If the ends are not run, the defensive line can close in to stop inside plays. And if they run wide very well but have no good fullback plays, the defensive line can reverse this shift and spoil the wide plays. Seven running plays hitting at seven different holes and two or three passes make up a fairly adequate offense. A few more may be added. But most teams have too many plays, too many because they are only half learned. One play well learned in all its details is far better than two or three or one-half dozen that a team knows only fairly well. A set of plays from a single wing formation follows. Seven running plays, three passes, and a punt are shown. More plays can be added; this number is enough to have an offense with fair balance.





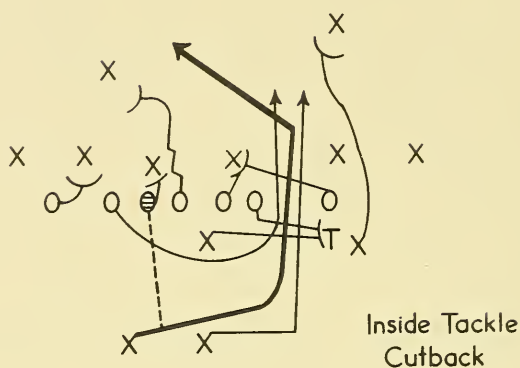
Short Reverse



Lateral off Fake Plunge

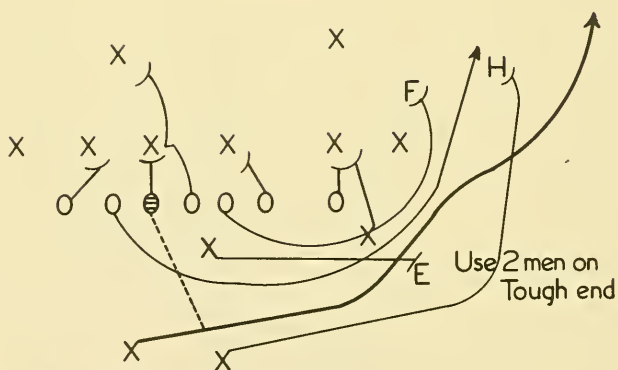
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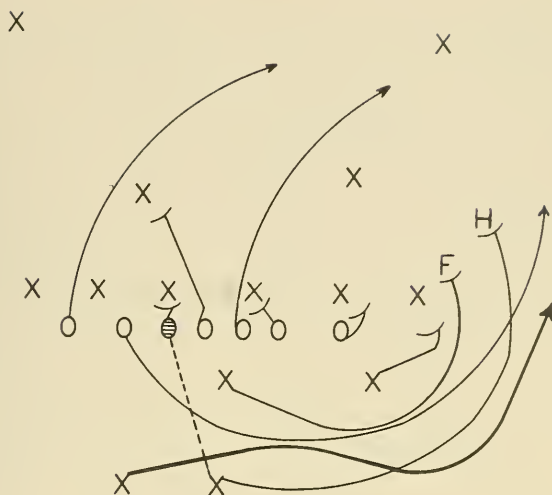


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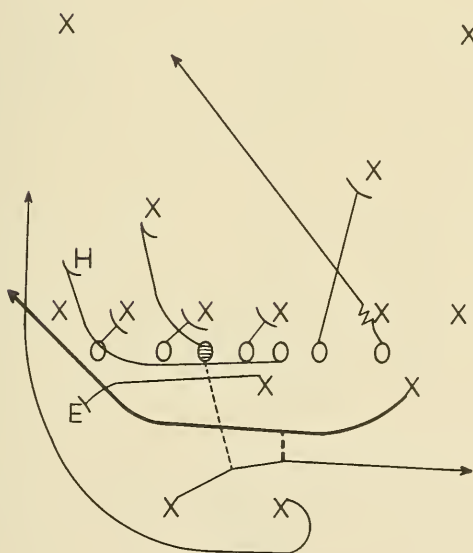
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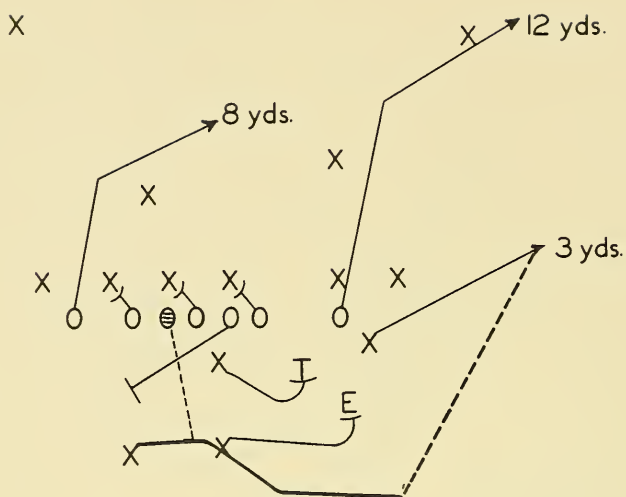
Off Tackle Power Play



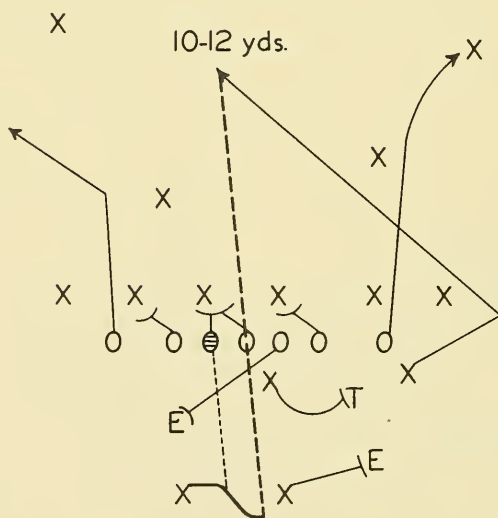
End Run "In-and-Out"



Deep Reverse



Running Pass



Center Pass

The fullback plunge or quick opening play is used for short yardage. It should never lose ground. The fullback should keep both hands on the ball to avoid fumbles. This play, the short reverse, and lateral are a series of plays which all start the same. The short reverse is a quick play. The fullback makes only a quarter turn in handing the ball to the wing back, who drives into the line as nearly straight ahead as possible. On the lateral play the fullback fakes a plunge and hands off to the blocking back, who laterals out to tailback for an end run. Good ball handling is essential. This play cannot be used more than once or twice in a game.

The tackle plays off the single wing are among the best in football. They may be used frequently. These and the rest of the plays shown, both runs and passes, are a cycle and should all look alike when starting. The cutback starts equally well from a fullback spinner. The off-tackle play may be varied to go around end by having the fullback block a slicing end in. The end run shown is best against a crashing end. It is not used often. The deep reverse can also be run wide if the weak side end slices. Reverses are best against lines that overshift.

The three passes shown may be executed as shown or passes may be thrown to other eligible receivers. A good passer and good blocking protection for him are very important in a successful passing offense. All receivers should run hard and expect a pass. The pass is made to the man who is open.

The punt should be practiced under game conditions until it can be done well. It is the most important single play.

Special Defenses

Since special defenses may cause a team trouble, some reference to play against them may be in order. First, it should be noted that shifting a defense to strengthen it at one point always weakens it at another point. The quarterback must be alert to see where these weak points are and to have plays to take advantage of them. The first point requires coaching and judgment. The second requires a balanced attack able to hit at all points along a defensive

line, and with passes that are accurate and that blanket the defense well. The more men up forward, the harder a line is to run against. A seven-man line is difficult; and eight-man lines must be opened up with passes. A five-man line is almost always weak around end. If it is so spread that it can cover end runs, there will be weak spots inside, usually for fullback or other plays down the center. Four- and five-man lines are never adequate against a proper running attack. The quarterback should look for the gaps in the line-up and for those that develop in the charge, and run plays there. Scouting a team will give an offense time to devise special plays and to plan the selection of plays in advance. The quarterback must keep an aggressive attitude and look for the weak spots. He should remember runs, fullback plays, and the quarterback sneak.

Shifting defenses creates confusion in blocking assignments. It is well to start by learning assignments well against 6-2-2-1, which will be the most common type met, then to learn assignments against a five- or seven-man line. These two are much the same in that a close, five-man line is spaced about the same as the inside five men of a seven-man line. These assignments against the six and the 5-7 are learned. For other shifts in defense one should take his man the same as against a six whether the man lines up in the line or in the backfield. He should check the assignments in practice to clear up questions, and to adapt as necessary.

Special plays may include wide end run plays against four- or five-man lines, sweeping reverses against the same, Tandem passes which put 3-4 eligible receivers on the same side of the field, deep passes into corners or down center, or other special passes depending on what part of the defensive field is left uncovered, against an eight-man line. In general, the quarterback should look for the weak spots and hit there.

Offensive systems which run plays between offensive men rather than at defensive holes and block according to order of men closest to the hole rather than any particular defensive position are used with good effect against shifting defenses. A good quarterback will be needed. Assignments

may prove confusing and the system is not recommended for the average high school team.

THE QUARTERBACK

A football offense must be coordinated to succeed. A constant choice of plays must be made. There is no room for argument and discussion. One bad general is better than two good ones. The man responsible is the quarterback, or signal caller. Plays may be called from whatever position the smartest signal caller holds, either backfield or line. The back has a little advantage in looking over the opposition. If a linesman calls plays, a back should call the hike or starting signal. Other things equal, it is best to have the quarterback call plays since he does not carry the ball often and will be criticized less for calling his own signal for the touchdown.

The quarterback should call plays in a confident voice and manner. He should run the team on offense and seek information on weak spots in the defense during time out. He must avoid playing favorites, which other members will resent. He should keep hustling and show a winning attitude. He must know all plays forward and backward, with assignments of each player. There are a great many rules for his job. A few of them follow:

In case of doubt, punt. Do not wait for fourth down to punt in defensive territory. When backed up against your own goal, kick on the first down.

Use the weather. Kick with the wind. Hold the ball against the wind. Kick on an early down with a wet ball and let the other side fumble.

Be conservative when ahead. Do not throw flat passes when leading. Take chances when behind.

Try out the defense. Then take advantage of the weak spots. Keep using plays that are working.

Run the ball on fourth down if inside the opponents' 35-yard line and if there is a good chance to make it.

Don't forward pass if the team cannot stop the running attack.

Do not run intricate ball-handling and timing plays which sometimes cause fumbles, inside your own 40-yard line.

It is well to save one or two scoring plays; they may be variations of another which has been run to "set up" these plays. These may be plays that will work only once in a game anyway

Study all players and know the possibilities of each man.

Practice signal calling before coming on the field. This may avoid a bad first impression of the quarterback by the squad.

Do not let the other players call plays, but ask for their suggestions during time out.

Encourage other players. Give credit for a good play. Make them believe they can do it.

See who gets the tackle, then check the assignments.

Think football. Be alert on the field and study the game off the field. The quarterback needs more knowledge than other players. If the team realizes he knows the game, it will inspire confidence, and they will listen to his orders.

DEFENSIVE TEAM PLAY

The use of team variations on defense has been one of the outstanding developments of football in recent years. Before this a team generally had one standard formation, usually a seven-man line and diamond 1-2-1 backfield. Close to the goal the backs would shift to a box, or 2-2, defense. As the game opened up, the six-man line became more popular. More recently defenses that cause confusion in blocking assignments for offense and provide a good pass defense, a six-man backfield with the five-man line, and even four-man lines, have been widely used. A five-man line is weak against a good running attack. Various arrangements are

used in the backfield, but the 5-3-2-1 is most common. Shifting defenses insure a variety of charges by defensive linemen which is desirable.

With a variety of possible defenses, many teams now go back to a defensive huddle before the play, and a defensive quarterback calls the plays. This system has two conspicuous advantages: the defense best suited to the play situation as regards down and distance and chance of passing can be selected; besides this, the offense does not know what defense to expect, blocking assignments may be confused, and the quarterback may not call a play that will work against this defense. More confusion is created, and the offense must learn more assignments. Any experienced player with some ability at guessing plays may be the defensive signal caller. Ordinarily the five center linemen come back to huddle with the fullback and the tackle then gives the play to the end. This leaves the end in his position to protect against quick line-up plays.

The three most common defenses are the 7-1-2-1, 6-2-2-1, and 5-3-2-1, with backfield variations to 7-2-2 and 6-3-2. The seven-man line is the most effective against a running attack. But it is difficult to get enough pass protection in the backfield with this arrangement. There has been a swing away from it, but the all-around merits of this system entitle it to a wider use than it enjoys at present—particularly when used as one part of a shifting defense. For instance, when the opposing team is deep in its own territory and not strong at passing anyway, the defensive quarter will do well to make a lot of use of this defense.

The six-man line with an additional backer-up can rush more and take more chances than a seven-man line. It is the most satisfactory all-around defense, particularly where passes must be taken into account. In situations where the quick kick does not need to be guarded against, the 6-3-2 presents a strong defense against both runs and passes, particularly short passes.

The five-man line is valuable as a variation, but weak against running plays as a regular defensive formation. It allows a lot of men back for pass defense and may place the linemen out of position, which confuses normal blocking as-

signments. This last feature is one of the main advantages of a shifting defense, for a team has trouble learning all its plays three or four different ways in order to go against every possible defensive setup.

Two cautions should be sounded concerning shifting team defenses. The variations must be well learned, since the individual cannot play his position the same way from all formations. This adds to the extras that must be learned and gives more chances to "blow" signals. With shifting defensive setups it is harder to fix responsibility for mistakes and the coach cannot always tell from the bench who is to blame. For such reasons many teams prefer to stick to one standard formation, usually a 6-2-2-1. The last point is that no team system will cover the faults of a group of individual poor tacklers and poor chargers who are a guarantee that no defensive system will work. It is always a temptation when coaching to try to supply a "system" which makes up for lack of fundamentals. The open secret of successful defense against the runner is eleven good hard charging tacklers ready for him. Such a team is willing to play on defense.

DO'S AND DON'TS FOR FOOTBALL PLAYERS

Keep hustling; "A winner never quits and a quitter never wins."

Learn the fundamentals. Good blocking, charging, tackling, kicking, passing, pass defense, running, and signal calling are the essential elements of a winning team.

Be regular at practice. Expect to put effort into the game. Remember no team can win without sweating.

Practice what you have to do, preferably under game conditions. Do not spend all free time throwing a ball around if you play a tackle position.

Listen to your coach; remember what he tells you. Take coaching.

Be alert. Use your head as well as your back. Try to outthink and outfight the opponent.

Protect yourself. Take care of all cuts, scratches, and minor injuries. Practice good hygiene for good health. Keep your equipment sanitary. Use protective equipment *before you get hurt*. Get in the best possible condition for effective results as well as your own safety. Only a minority do this.

Do that something "extra" not required of you in the play.

Get expert advice. Study the sport. You will not excel at the game unless you take a real interest.

Learn your plays, then let the quarterback run the team.

Get along with the rest of the players and the coach.

Play your games one at a time. Everyone is likely to be tough.

Forget yourself and work for the team.

Football is a man's game. Fight to win.

DEVELOPMENT OF THE PLAYER

This subject should be considered over the course of one season and over a period of years. The preliminary training for the season should start a month before the first practice, if a game is scheduled for two to three weeks later. At least six weeks must be taken to get in good physical condition. A large part of this should be running to build up stamina. There should be some charging to develop leg muscles. Gymnastics, weight lifting, and bar work are good to build arms and shoulders. The player should include as many football skills as possible in this training, since this will pay extra dividends. For example, an end can develop wind and legs while practicing catching passes.

As a game approaches, the player should work up to the right pitch for it. The good athlete does better in the game than in practice. He should not be a "practice" athlete. The week's practice schedule should be so arranged that mentally and physically the player is ready at game time. This will mean the hardest practice the first half of the week but the most spirited practice the day before the game. One

should not overeat the day before or the day of a game. Meals should precede game or practice two and one-half hours or more, and heavy greasy foods should not be included in this meal.

In looking over the long-time development of the football player, there are several things to think about. The first is that the boy must really want to play. He may get this from a natural urge for competition, family and school tradition, admiration for older players, or some other source. But he must want to play, or he will never get far in the game. Having this first requirement and general good health, he is likely to succeed in proportion to his progress in the learning of football skills, knowledge of the game, development of strength, development of competitive habits, and natural gifts of speed and size.

What a boy does during grammar-school days has a bearing on later performance. It is most important to eat proper foods, to avoid disease, and to be active enough to build up a strong body. The boy may learn some football skills in prisoner's base, black-man, and "kid" games of football. None of this should be too highly organized or exhausting. General development counts far more than football skill during these years.

During the period when he is growing up rapidly, perhaps while in the ninth or tenth grades, is a good time to be learning the fundamental skills. The heart should be protected in this period from strain due to exhaustion. Too much "crowding" may leave physical injury. There should be special care during colds or after sickness of any sort. Following this period in the last two years of high school is the time to acquire game experience, and continue to develop fundamentals. By the time he enters college, the player should be well grounded in fundamentals of the game with some experience in competition. Then he can concentrate on the system of play, the fine points, and further development of fundamentals. Occasionally a boy makes the varsity team in college without high school experience. At least he has no bad habits to unlearn. But he is doing it the hard way. The same boy would have been a better player with more experience.

Chapter V

BASKETBALL

POPULARITY OF BASKETBALL

This truly American sport, invented in the school year 1891-1892 by Dr. James Naismith, has grown rapidly in popularity, especially in the last thirty years. It is now the most widely played school sport in this country, not alone for interschool competition, but also for intramural purposes. Millions of boys and young men enjoy basketball for most of the winter season; many carry their competition on over into spring and fall, and some even play the game during the summer. Wherever courts are available the game is equally popular with those who are not in school. Professional, semiprofessional, city, church, and recreational leagues care for many of the players. Naval and marine stations, army camps, and flying units maintain teams. In addition to those station, camp, and field teams, there are numerous teams representing small units of the armed services. Basketball has a nationwide appeal to boys in the United States. Since the game is so popular, most boys, as they prepare to become athletes, will want to spend a part of their practice time developing the skills, knowledge, and attitudes that will prepare them to play better basketball.

PREDOMINANTLY OFFENSIVE SKILLS

Shooting

This is the most important of all basketball skills. Unless the ball goes through the basket, no points are scored, and it takes points to win ball games. It should be noted that although shooting is the most important skill, it is not the only important skill.

In order to learn any skill well it is necessary to practice correctly a great number of hours. The more exact

or complicated the skill the more practice is required to master it. Shooting is a very exact skill requiring exceptional control of the ball, for if the shot is a little too short, just too long, or slightly too far to one side, the basket will not reach out and get it as the pass receiver might do. Consequently, the first major point to stress in learning to make baskets is practice, practice, and more practice. This can be started with an old ball during spare moments on the playground or recreational courts before the player is ready to play on any organized team. In fact, much preliminary practice is necessary in order to become competent enough to play on an organized team. The good players of the future are to be found among those boys who like basketball well enough to spend the necessary hours shooting baskets.

To obtain the best results it is not enough just to spend a lot of time practicing. Besides that it is necessary to practice the right way, for one tends to learn that which he practices; if he does things the wrong way, he learns them the wrong way. Shooting should be practiced as nearly according to game conditions as possible, for it is under game conditions that the baskets must be made. Wrong learning in practice may make it necessary to unlearn the wrong method and then learn the right one before a player can shoot well in a game. To illustrate the point: many players spend most of their free, nondirected shooting practice on long shots from a standing position, taking all the time they want, and having no one bother them, only to find when they get into a game that practically all shots must be made quickly while on the move or just after having moved, and with an opponent trying his best all the while to stop the shot. Then it becomes necessary to learn to shoot under strange conditions and this results in very few baskets until one has corrected his shooting practice or played in enough games to learn to shoot under game conditions. Strangely enough, many players continue year after year to practice their shots under one set of conditions and use them under another. Proper shooting practice includes trying the kind of shots one will shoot in a game, under the conditions that will exist in a game. To illustrate: the player who uses one-handed shots after a pivot in a game should practice such shots with some other player guarding him; the player who uses tip-in shots should, of course, practice them against competition; the guard who

stops suddenly and then shoots should practice that way; the forward or center who shoots practically all his shots from close in should not waste half of his time practicing long shots; the player who gets down fast on the break and dribbles in should practice the dribble-in shot at full speed; and all players should practice free throwing one or two shots at a time here and there during the practice period. In games, free throws are mixed in now and then after strenuous exertion. It is little wonder that players who, while rested, make seven or eight out of ten free throws attempted one after the other, make only one-half of their free throws in a game. They practice one way and actually use the skill another.

Shooting the right way includes having the right mental attitude. The good shooter believes in his shots. He thinks he can make them, not fears that he will miss them. He lets them go toward the basket without reservations; he has no regrets while the ball that he shot is traveling toward the basket. This confidence must be built up during practice and actual play. It comes through experience and checking with one's self from time to time about relaxing. One can sometimes relax by trying to feel like a rag, or as if he could just sink down and drop through the floor. This is a good attitude to assume during the first time out early in a game, when players are likely to be tense. Some coaches give special exercises seeking to teach relaxation.

At one time certain types of shots were considered the correct ones and other shots were banned by most coaches. The now extremely popular one-handed shot was not in good standing twenty years ago. Years of experimenting with a great variety of shots have demonstrated the value of many of them. The correct shot is the one that can be got off against opposition and that goes through the basket its fair share of the time, even if it is taken with the back to the basket and the eyes closed. It is a mistake to overlook the fact that there are great individual differences among players, and consequently different types of shots suit different men. While admitting the usefulness of different types of shots, it should be pointed out that the percentages are in favor of one type succeeding under some conditions and others under other conditions. In general, the two-handed

chest or underhand shots are more useful for long shots since they are more accurate at a distance. The chest shot is easier to get away, but for some players the underhand shot is more accurate. Clever players can make either type from well out on the court, for the defense does not guard as closely out there. These same two-handed shots are useful closer in on those occasions when there is time to get them off. In general, the one-handed shot is more useful close to the basket, because it is much easier to get off when closely guarded and is reasonably accurate at short range. If used while the player is fading away from the basket, it is almost impossible to block. The two-handed, above-the-head shot is comparatively easy to get off and is quite accurate for a few players. Some pivot players use the one or two handed underhand sweeping shot very effectively at times. There are so many exceptions to hard and fast rules that might be laid down concerning shooting that it is not wise to have many such rules. Those who shoot well, however, generally follow certain patterns in connection with various types of shots, and the amateur would do well to copy the patterns of those who succeed.

The two-handed chest shot: The player grasps the ball in both hands, palms in, and pulls the ball to the chest; he leans forward, bends the knees, bends at the hips, looks at the basket, extends the arms forward and upward, and snaps (lowers and raises suddenly) the wrists just before the ball leaves the hands. Some men shoot on the run, some with feet together, some with feet apart. That seems to be a matter of choice, as does the amount of "English" or spin put on the ball. In case of doubt a small amount of spin is advisable. If shooting on the run, the player often jumps into the air as he shoots; if shooting from a set position, he generally rises on his toes.

The two-handed underhand shot: This shot is similar to the two-handed chest shot except that the shot starts from just about the height of the knees and the arm movement is more of an upward sweep.

The two-handed overhead shot: This shot is generally used close to the basket with the player jumping into the air as he shoots. If he has his back turned toward the basket, he must turn in the air as he jumps. In other respects

one form of this shot is similar to the chest shot except for the starting position of the shot and the accentuated wrist snap. The other form, whether directly over the head or over one shoulder, is essentially a two-handed throw with a pronounced wrist flip as the ball is released. Tall men get these shots off better.

The one-handed push shot: This shot is very popular for close-in shooting when guarded. The ball is grasped in both hands, with the hand that is to do the shooting carrying the ball and the other guiding it, until it is balanced on the shooting hand with the thumb toward and just about at the level of the ear. Then the player may step toward the basket, away from it, or to one side, depending upon the position of the opponent, and leap into the air while extending the arm, pushing the ball in an arc at the basket. Many good shooters use little or no spin.

The lay-up shot: This shot, one or two-handed for set-ups, is generally used following a dribble or step toward the basket with the player on the move. The ball is grasped with both hands and carried up above the head while the player is jumping high toward the basket. Some good players release with both hands; others carry the ball the last couple of feet or more with one hand. The ball is generally placed easily against the backboard from which it rebounds into the basket, except when the player is coming straight at the basket from the front or side, in which case the ball is often tossed gently over the close rim into the basket. This is the surest shot in basketball, with the possible exception of the free throw. The most common fault on all lay-up shots is to hit the board too hard.

The sweeping underhand shot: This shot is made with either one or two hands, usually from the pivot. The fake and the pivot are the difficult skills to execute properly. If they have been executed properly, the sweeping partially underhand, partially side-arm shot is made at the end of a semicircular movement of the arms. The ball is grasped in both hands and carried low while the player is completing the pivot and starting to turn toward the basket. Then it is carried on up toward the basket with one or both hands, being released at about the height of the shoulder. The backboard is generally used on this shot as in the lay-up shot.

The sweeping overhand shot: This is usually a one-handed shot used close in. It often starts at about the waist with the ball in both hands. One hand guides for a short distance, and then the other, with the arm almost straight, swings out away from the basket and then up toward it, releasing the ball by letting it roll off the hand at about the top of the swing. The ball has considerable spin, which causes it to jump toward the basket off the backboard; the board is generally used in this shot.

The free throw: Most, but not all, excellent free throwers use a two-handed underhand shot. It is important to develop a routine which includes position of feet, grasp of ball, arm movement, leg and body movement, relaxation, and direction of vision. Since there is no guarding, any form that gets the ball in the basket is satisfactory. It is customary to shoot at the ring, but some very good free throwers use the backboard.

Tip-in shots: The player should keep his feet under him, get between his guard and the basket, jump high, and tip or catch and shoot the ball into the basket. This skill comes only after much practice, for one must learn to judge where the bounding ball will be and to adjust to body contact while following in, besides actually controlling the ball itself. This skill is much neglected in the average practice session.

A few general rules to follow in shooting: The player should:

1. Believe in his shots, and think they will hit rather than fear that they will miss.
2. Reach out well toward the basket after the ball when he has let it go. This follow-through is important.
3. Avoid careless general-direction shooting. Always aim at something. Some poor shooters have developed a habit of just throwing in the general direction of the basket.
4. Look at the basket whenever possible. There are some exceptions on close-in, over-the-head shots where the player shoots without looking.

5. On all but short shots use a medium arch. Too much or too little arch is hard for many players to control.
6. Except on close-in shots and angle shots from the side, shoot at the ring.
7. Practice all shots except free throws on the move or during sudden stops just after having moved.

Passing

Passing is one of the important offensive skills, for upon it depends largely the ability to maneuver the ball into position for a shot. The better the passing, the better the opportunities for good shots. This may cause some to believe that passing is as important as shooting, but it is not, for there are many good-passing, poor-shooting teams that are only ordinarily successful, and there are many good-shooting teams that succeed in spite of very ordinary passing. In fact, some offenses with a couple of tall boys are built largely around the principle of "shoot and follow in." Passing is important enough, however, that all really outstanding teams are good passers.

With passing, as with shooting, a great amount of the right kind of practice is necessary in order to become proficient. The good passer must not only know how to pass but when and where to pass. Learning the "when" and "where" takes more time than learning the "how", and depends much less upon explanation than upon practice under game conditions. The "when" and "where" will be discussed under team offense. Before a player is ready for team offense, however, he must learn to pass in order that he may be able to execute the pass when the time comes to use it.

There are as many types of passes as there are throwing and pushing movements, but for the sake of convenience they can be grouped into two general classes with three or four types under each class:

Two-handed passes:

1. snap
2. overhand
3. underhand

One-handed passes:

1. push
2. throw
3. hook
4. underhand or scoop

All these may be bounce passes (those that rebound from the floor), or flight passes. In general, the bounce passes are thrown from the level of the waist or lower. They may be one or two-handed passes. Two-handed snap passes (those made by snapping the wrist much as in shooting the two-handed chest shot) and one-handed throw passes where the passer steps to one side to throw around his guard, are the most common bounce passes. The underhand roll pass is a variation of the bounce pass. It must be picked up off the floor. Customarily other bounce passes are caught on the first bounce. All the passes listed are used for flight passes as well. The two-handed snap and the two-handed underhand are most popular for short passes. The one-hand throw and the one-handed hook are most popular for long passes. The two-handed overhand pass is used effectively by some tall men at close range, as is the hook pass to pass over an opponent. The passer often jumps as he uses these passes for passing over an opponent.

Instead of describing in detail how to execute each pass, general passing suggestions are presented. It is assumed that the player will be able to use his own initiative in developing his passing movements.

General rules for passing: The player should:

1. Cultivate the habit of passing quickly without winding up; snap it, not whip it.
2. Lead the player who is to receive the pass unless he is in the open and already at the spot where he wants to be.
3. Aim to have his bounce passes reach the receiver between the knees and hips.
4. Aim to have most of his flight passes reach the receiver at the level of his belt buckle, except when

passing high to a tall man or to any man who is close to the basket and breaking for it. The closer he is to the basket the higher the pass should be.

5. Deceive his opponent as to where he will pass. Faking helps to do this.
6. Avoid fancy, blind passes in games unless he has practiced enough to know exactly where they are going. They are used effectively by a few experts, but are a handicap to most amateurs.
7. Except for trick passes designed especially to deceive the opposition, follow through after his passes.
8. Avoid excessive spin, for a pass with a lot of spin is more difficult to hold.
9. Avoid long passes across the defense, for they are likely to be intercepted.
10. Avoid slow lob passes as a general rule, for they are liable to be intercepted.
11. Aim at a definite spot rather than just in the general direction of the receiver.
12. Practice passing on the move, for many passes must be made while in motion.
13. Spend some of his free practice time working on the passes on which he is weak.
14. Practice with snap and enthusiasm. Careless, indifferent pass practice is worthless.

Recovering Ball From Own Backboard

This is almost the equal of passing as an offensive skill, for possession of the ball under one's own basket is likely to mean another chance to shoot at the basket by the man who recovers or by some teammate a little farther from the basket. Follow-in shots either tipped or caught and then shot are made possible through ability to get the ball off the offensive backboard.

This important offensive ability has been discussed briefly under shooting, for follow-in shots are a part of

offensive backboard work. Proficiency in this phase of basketball requires emphasis on the following points during practice periods: being in the right place at the right time, getting up into the air, scrapping for the ball, and keeping one's balance. Only through much practice against competition can a player learn to judge accurately where the ball will go as it comes off the backboard or ring, and to maneuver among the mass of players under the basket so that he will be at the right spot when the ball does get there. Since this is about the roughest phase of basketball practice, many players and coaches pass it by without sufficient attention. One of the most convenient ways to be up in the air under the basket is simply to grow tall. It is the tall player who is generally best at following in. The shorter player must find ways to compensate for his lack of height in this important phase of the game. If one can arrive at the proper place first, he can force the other players to take the less favored positions and thus reduce their chances of recovering the ball. Getting into the proper position first, and then jumping high and scrapping for the ball can overcome much of the disadvantage due to lack of height. There is no substitute anywhere in basketball for scrap or fight, and especially is this true under the basket. Ability to keep one's balance depends considerably on one's weight, for there is much body contact under the basket, and the light players especially are often in the air. The tall, heavy player has a marked advantage in crowding the light players off balance. However, if the light player keeps his feet well spread as he comes down, he can do much to prevent being crowded out of a favorable position under the basket. The rules provide for fouls in case of marked body contact, such as deliberately jumping against another player when going up after the ball, bumping him with the hips, pushing, and the like, but the rules can only be applied by the officials, who must see what is happening in order to call it. It is extremely difficult for the officials to see all that happens when a group of men are crowded under the basket trying to get the ball. One need not expect the officials to keep him from being bumped about somewhat under the basket. Then, too, only a slight shove can spoil a man's control while in the air if he is not prepared for it. Consequently one must have experience in maintaining his balance if he

is to perform well in the battle for rebound balls off his backboard. Much of that experience should be gained during practice sessions.

Pivoting

Pivoting is an additional offensive skill which makes good passing more effective and more easy to execute at times. In some offenses this is a very important element while in others it finds comparatively little use. Certainly as an offensive fundamental it is of less importance than passing.

Pivoting in itself is not a difficult skill to learn to execute reasonably well. Although it is one part of that group of skills known as playing the pivot position, it should not be confused with the term "pivot play" which involves receiving passes, faking, ball handling, passing, and shooting as well as pivoting. In fact, some very successful pivot men are not particularly adept at pivoting. Pivoting refers to maneuvers executed by the body in general while keeping one foot in place. To execute these maneuvers well the knees should be bent, the body bent forward at the hips, and the feet well spread. The weight should be well balanced over the feet. The turn may be made with the front or the rear of the body leading, but customarily the player leads with the rear of his body or steps backward with the free foot while holding the pivot foot in place. This tends to keep the ball, which is carried in front of the body, away from the opponent. Although a ball and a court help to complete the setting, neither is necessary in learning to pivot. This is one basketball skill that can be practiced almost anywhere until the fundamental movements involved are quite well established. It helps in developing balance to have a partner who pushes the pivoter or tries, not too enthusiastically, to bump him off balance as he executes the maneuvers. If the pivoter is well balanced throughout his pivot, a mild push or bump will not spoil his execution. If he is poorly balanced, he will soon learn to adjust his movements so that he can maintain balance even when obstructed by another player. Like other skills, pivoting must be practiced thoroughly in the actual game setting in order for the player to learn just when to use it in combination with other parts of the game.

Faking

Faking may be considered a part of passing, a part of shooting, or a part of some other skill. We shall consider it a specific skill which, however, to become effective, must be used in connection with other skills. Correct faking in coordination with other maneuvers requires much time to learn, but is an essential in the repertoire of a finished player. Most outstanding players fake well; whereas few run-of-the-mine players do.

Faking or feinting consists in starting to make some movement and then stopping before the movement is carried through to its regular conclusion. This may be done with the head, the legs, the body proper, the arms, eyes, or any combination of the various parts of the body. The ball is commonly used, as in pretending to shoot, to pass, or to start a dribble, but players not in possession of the ball can make valuable use of this stratagem by feinting a move in one direction and then going suddenly in another. The novice can act as though he is going to make one move and then stop and make another, but it takes much experience to make the fake convincing enough to deceive the opposition and to develop a method of going smoothly into the real intended movement from the feint. While practicing various fakes it is well to have one's teammates criticize his movements and tell him how they can determine that his attempts are only fakes. Sometimes the head or body movement does not fit in with the movement of the ball to give proper deception. At other times the movement of the ball may be only halfhearted. A good fake not only makes it easier to execute the intended movement more successfully, but it also tires the opponent by keeping him from relaxing and helps keep him from tying one up with the ball. The expert player may precede a pass or a shot with a combination of feints each of which makes its contribution toward the deception of the opposition in such a way as to make the intended movements more likely to succeed.

Dribbling

Some coaches insist that the most important thing to learn about dribbling is to learn not to use it. They feel that dribbling may be used at the wrong time as often as

the right time, and will consequently handicap a team about as much as it helps them. Dribbling has a definite use at certain times in basketball especially in advancing the ball from the back court, however, and if used at the right moments it is an important offensive skill. Although not used much in the fore court, still each player generally has opportunities to use dribbling effectively in every game.

This is one of the most interesting skills to learn, for the performer gets to handle the ball all the time he is practicing, and there is real fun in making the ball do things. Even the beginner can dribble after a fashion, and most amateurs soon become skilled enough to dribble the length of the floor when they have no opposition. Expert skill or finesse, however, must be purchased through long hours of practice.

The dribbler should take a stance with his feet far enough apart to provide good balance, bend at the knees and hips, and lean forward over the ball. Dribbling is performed by placing the fingers and thumb on the top of the ball and snapping the wrist in a combined pushing, flipping motion while the hand is in contact with the ball. The palm of the hand may touch the ball at times but the fingers and thumb control it and are the last to break contact with it as it leaves the hand. In learning to dribble, one should try to control the ball with the fingers and thumb instead of spanking it downward with the palm of the hand. Dribbling consists of a touch and flip rather than a hit or spank. A smooth, firm surface and a ball provide the essentials for dribbling practice. In order to become a really good dribbler the player must learn to use one hand and then the other as the occasion demands, to keep the dribble low, to bounce the ball without looking at it, to pivot, to change pace (go fast, then slow), to sidestep opposition, and to move at full speed while dribbling. These abilities do not come all at once, but each will develop gradually if practiced its fair share of the time. It is well to remember that one must practice a skill a lot to learn it, and that he learns it in the way he practices it, rather than some other way in which he hopes to learn it. Many players who have seldom practiced dribbling at full speed are disappointed and surprised to find that in a game they lose the ball or make a very poor shot at the end of a

fast dribble to the basket ahead of a closely pursuing guard. They should not be surprised, for dribbling at full speed while being rushed is not the same thing as dribbling unchallenged at three-fourths speed. The ball is much more difficult to control at full speed and that control is learned largely through practice at full speed. Other phases of dribbling follow the same learning pattern. If one practices a high dribble, he should not expect to be able to use a low dribble in a game; if he watches the ball in practice, he is likely to lose it if he fails to watch it in a game, and if he attempts a change of pace in a game without having practiced it before, the ball is likely to get away from him.

TEAM OFFENSE

Team offense is built upon the cooperation of the various players in getting the ball into the basket. Success against good competitors depends upon the level of cooperation maintained. This means more than just the desire to help others; it means having sufficient training to know when and where to go and when and what to do in order to help most. Cooperation is a sort of all-embracing general skill, the efficiency of which depends upon the way the various individual skills are put together, therefore it requires an enormous amount of practice, and is extremely important. Team members who have played together a lot learn to adjust to each other and tend to develop good teamwork.

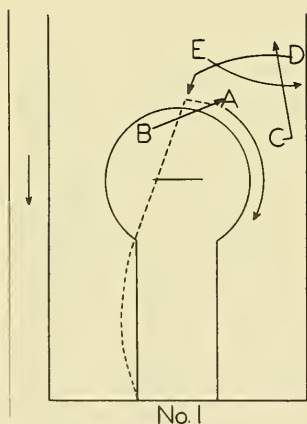
There are two extremes in the types of offense, (1) the set offense and (2) the entirely optional offense, with a great variety of partially set, partially optional systems in between. In the set offense a definite pattern for the various plays is established and each player has his course of action set for him. Often there are provisions for a choice between one and another variation of the maneuver, but the choice is limited to the variations set up. In the entirely optional offense each player is at freedom to move where he chooses, pass to whom he chooses, and shoot whenever he chooses. Few systems allow as much freedom as this; that is, most of them are only partially optional. Some successful coaches have used a set offense, others an optional offense, but most have used various combinations of the two, depending upon their men, the type of defense used against them, and their

own likes or dislikes. Apparently there is little in either the set or the optional offense that can assure a victory. Instead, it is the way the offensive maneuvers are executed that makes the difference.

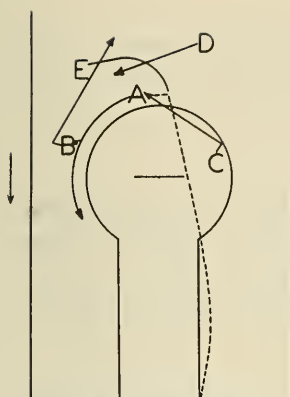
The system of offense presented here is a combination of set-optional and fast-break, slow-break techniques. The set aspect of this system of offense is limited to tip-off or held-ball plays, out-of-bounds plays, and a few set plays mixed in with the general offensive maneuvers. Correct timing and exact execution are required on these plays.

Tip-off Plays and Held-Ball Plays

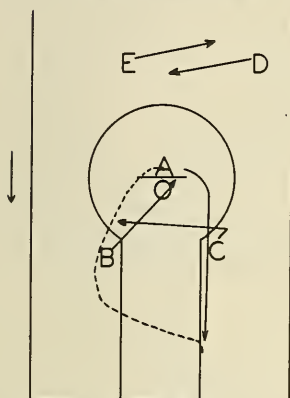
These plays should be tried only when one is almost sure to get the tip, for the tip must go to the proper place or the play cannot even start. If the other team is controlling the ball or even has a fair chance of getting it, defensive positions and maneuvers should be stressed. They will be discussed under defense. Granting, then, that one is quite sure to get the tip, the following plays may be used effectively from either the center jump or held-ball positions. If the opposition pulls an extra man back on defense, however, and practically grants to one's guards the ball on the tip, the plays cannot be expected to work.



No. 1: *E* starts just before the ball is tossed and screens *D*'s guard. *D* breaks around the screen for the basket. *B* breaks in and receives a high tip from *A*, which *B* tips back over his head to *D*, who takes it and dribbles in, or, if he is stopped, passes it to *E*, who breaks suddenly for the basket after tipping the ball to *D*. *C* moves into a defensive position, timing it so as to help screen out *D*'s man if possible. Faking or false starts by *C* and *D* may help deceive the

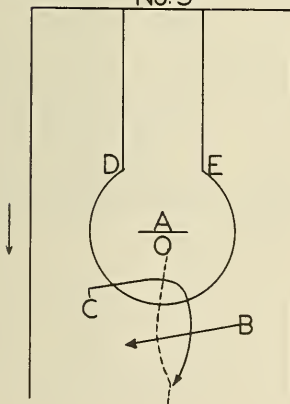


No. 1 (alternate)



No. 2

No. 3



opposition. The same play can be used on the other side with *E-D* and *C-B* exchanging assignments. Another variation can be used where *A* tips the ball directly to *D* or *E*.

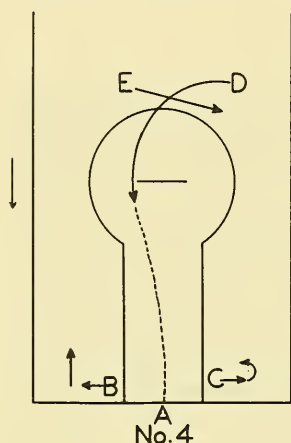
No. 2: After two or three trials of the play just described, this attack may be effective. *B* screens *A*'s guard, trying to pull his own guard in with him. *C* fakes and then cuts across to *B*'s position, where he receives the tip, takes a step or dribble to make a turn facing the basket, and passes to *A*, who breaks for the basket immediately after tipping the ball. *E* and *D* maneuver to attract attention. This play can be used to the other side with *C-B* changing assignments.

No. 3: This play is used when the opponent's guards pull in close, permitting a man to break behind them. Note that the held ball is in the opponent's end of the court. The man jumping must be able to tip the ball well down-court. *B* screens *C*'s guard; *C* fakes, and then breaks for the basket. *A* tips the ball

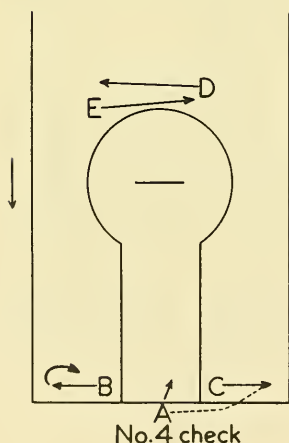
down court over the heads of the opposing guards. In a variation of this play *C* could screen for *D*, and *B* could screen for *E* as well as *C*.

Out-of-Bounds Plays

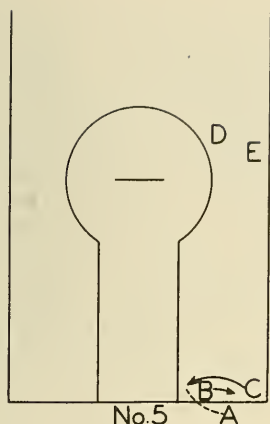
These plays are designed for use from the offensive half of the court only. Each play has at least one check or alternative maneuver to use when the opposition has learned the play. It is important in these plays to have men assume the proper starting positions. They should do so quickly.



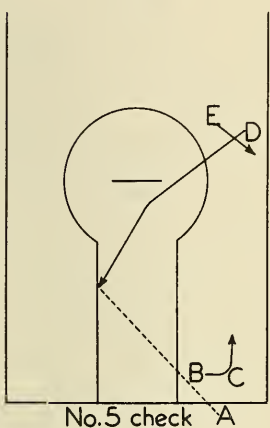
No. 4: Under the basket: *C* and *B* move toward the sidelines calling for the ball. *E* screens for *D*, who breaks in. *A* fakes to *B* or *C* and then bounce passes to *D*. *B* breaks back for defense; *C* follows in. In a variation, *D* screens for *E*. In all cases *A* steps onto court immediately after passing to help follow in.



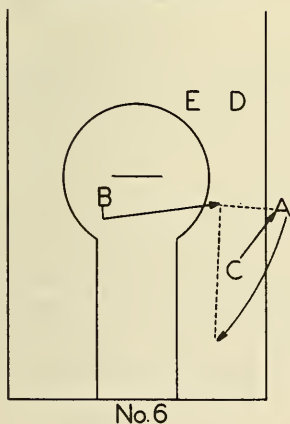
No. 4: Check: To be used when *C's* or *B's* guards let them go. *C* and *B* move toward sidelines. *A* fakes as if to pass down center, but passes to *C*, and then steps in bounds. *C* may shoot or pass to *A*. *B* follows in. In a variation the ball could go to *B* instead of *C*.



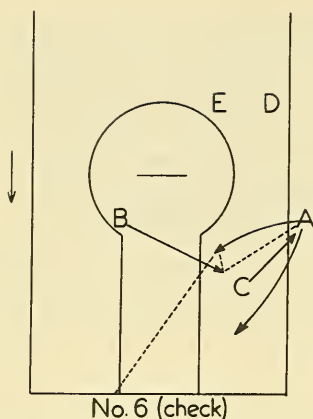
No. 5: *To one side of the basket:* B screens for C, who breaks around the screen for the basket. A fakes as if to give the ball to B and then passes to C. B and A both follow in.



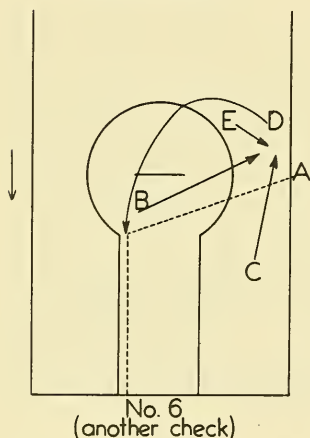
No. 5: *Check:* B moves as if to screen for C, but continues on back into defensive position. E screens for D, who breaks around the screen for the basket. A fakes to B, but passes to D. In a variation, E starts to screen as above and then takes one step toward A, where he receives the ball for a shot. The same plays are worked from either side.



No. 6: *On the side of the court:* C rushes up to screen A's man while calling for the ball. B gets a high pass from A and returns pass to A as he breaks for the basket. The same play can be used from either side.

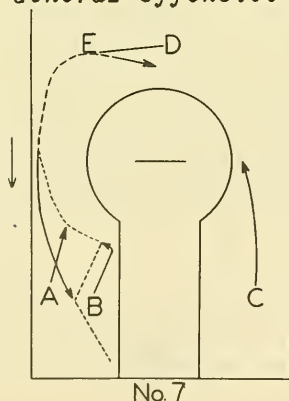


No. 6: *Check*: Play starts the same as No. 6, except that *B* is closer to the basket. When *B* receives the ball, he fakes to *A*, who stops when he does not get the ball. *C* hesitates a moment after screening *A*'s man and then cuts on around *B*, who gives him the ball. As a variation *B* might fake to *C*, keep the ball, and dribble in with it.



No. 6: *Another check*: *E*, *B*, and *C* all screen for *D* while calling for the ball. *A* fakes to them and then throws a high pass over the defense to *D*, who has broken around screen for the basket. *C* and *A* follow in.

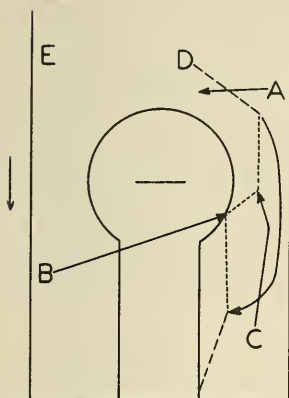
General Offensive Set Plays



These plays are used from time to time as part of the regular floor play.

No. 7: *E* and *D* criss-cross, with *E* screening for *D*, who dribbles over to side line and passes to *A* breaking out to meet the ball. *A* passes to *B*, who breaks out for the ball. *B* then passes to *D*, who

slows up just after passing to *A* and then breaks for the basket. Variations: *B* fakes to *D* and passes to *A*, who cuts around him toward the free-throw line; or *A* might never give the ball to *B*, but instead fake to *B* and hand it to *D* as he cuts past.



No. 8

No. 8: *A* screens for *D*, who dribbles to the side line and passes it to *C* breaking out to meet the ball. *D* continues on toward the basket. *C* passes to *B*, who breaks out to meet the ball. *B* passes to *D*. This can be varied by *B* faking to *D* and passing to *C*, who cuts past him toward the free throw lane.

Coupled with the set plays presented above are the largely optional slow-break plays and the fast-break plays. The slow-break plays are operated from the positions indicated in No. 7 with three men in the defense and two out in front, and from the positions indicated in No. 8 with two men in and three men out. Those players who are in the defense should maneuver, and rest if necessary, close to the outside lines, thus keeping the middle of the court open for their teammates or themselves to break into when opportunities arise. By criss-crossing and screening both out in front of and in the defense, men can be broken clear in the open center of the court toward the basket.

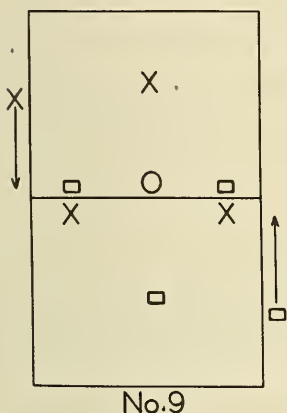
When the players are in the positions indicated in No. 7, the approximate positions suggested against a man-for-man defense, *B* can screen for *A*, who then breaks for the center of the court. Both *B* and *A* can cross the court and screen for *C*, who then breaks for the open center of the court. *E* and *D* can criss-cross and break around the resulting screens for the basket. Their efforts to break into the clear are made much easier if one or more of their teammates

come out to help screen for them. To add variety and help confuse the opposition, *C*, *B*, or *A* can move into the center and play pivot for a while, and then go back to the former position.

Approximately the position shown in No. 8, with *E* and *A* moved in a step or two closer to *B* and *C*, respectively, is suggested for use against a zone defense. Since most zone defenses operate according to the position of the ball, no attempt is made to screen, but the ball is kept moving rapidly from one player to another. This will give the defense a good workout while the offense conserves energy. *B* and *C* take various positions in the defense to find the spots that are difficult for the opposition to protect. As the opposition becomes less alert and the weak spots in the defense are discovered by *B* and *C* as they move about from place to place, the offense should be able to get some good set shots. Against a zone defense particularly, the ball should be kept moving rapidly for a long time. Too often the offense gets anxious and takes a low-percentage shot before there has been enough passing to discover the weak spots in the defense and to get the opposition a little lax or careless. During the period of rapid passing the offensive players should not dash around furiously, but instead should move themselves about slowly. It is the ball that must do the fast moving. However, a sudden break may help clear a man for a shot when the time comes. After shooting, two or three men should follow in the shot, for following in is just as important here as in other offensive play. Many less experienced men dash in too rapidly when following in and are not under control if the ball comes to them. This can be avoided by starting sooner and getting there in time to collect one's self for the rebound. This insures better control if the ball comes to one, and leaves him in a better position to tie up the opponent or get back on defense if he gets the ball.

The fast break is valuable in those situations where there is really a fast break opportunity, but not every time a team gains possession of the ball. Opportunities for a fast break present themselves whenever game situations make it possible to get one man out in front, to put two offensive men on one defensive man, or to put three offensive men on two defensive men. Speed is of prime importance in a fast break,

but accuracy must accompany it or the advantage of speed will be cancelled by throwing the ball away or by having it intercepted. Fast-break play must be largely optional, for the play may start from any spot with those players in favorable positions rushing toward the basket. If a man is open closer to the basket, the ball should be passed to him; if he is not, the player with the ball should dribble toward the basket, not off toward one side, for if he does, one guard can then stop him along with another man closer to the basket. The man with the ball should dribble directly enough at the basket so that he will have a good shot at it if the guard does not challenge him. Thus the guard will be forced to commit himself; if he chooses the dribbler, the ball is passed to the other man; if he chooses the other man, the dribbler shoots. A satisfactory device for teaching the fast break and defense against it is presented in this drill.



No. 9: *Fast Break Diagram:*

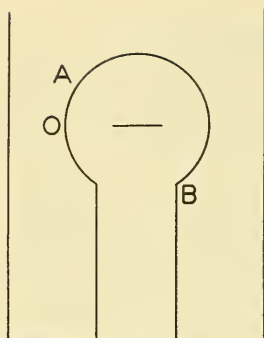
Two groups of three men each lined up as in diagram. □ = one group; X = other group; O = man to toss the ball. The ball is tossed (with fakes mixed in) to any player, and his group then breaks for the basket. Play continues until the offensive team scores, loses the ball, or has a tie ball. This is vigorous play, for men are urged to hustle back for the next play. After a few tries, six fresh men replace those on the court.

General Suggestions Concerning Offensive Play

The player should:

1. Practice the individual skills first.
2. Then work with two or three men at offensive maneuvers.

3. Later, work with five men on offense without opposition.
4. Finally practice team offense against opposition, a play at a time, and in regular scrimmage.
5. Battle especially hard under the basket.
6. Avoid making low-percentage shots (those that go in only a small percentage of the time).
7. Remember that it is better to make an unhurried shot from a little farther out than to make a wild heave from a step or two closer to the basket, with a guard right on him.
8. Remember that an accurate pass is better than a fancy pass.
9. Mix faking with passing and shooting.
10. Move out to meet the ball when closely guarded.
11. Say an encouraging word to his teammates now and then.
12. Be sure he knows whose ball it is out of bounds.
13. As he jumps into the air to shoot close to the basket, take the shot instead of flipping the ball to some teammate who probably is not expecting it.
14. Avoid long passes across the defense (diagonally across the floor).
15. Avoid lob passes, for they are easy to intercept.
16. Remember that high hook passes and low bounce passes are much more likely to get to a teammate who is in the opponent's defense than is a direct pass of average height.
17. Go after all free balls which are near.
18. Take time out to stop a 'stampede'.
19. Go a little harder than he thinks he can.



No. 12

No. 12: *Two-on-one drill:*
O guards *A*, who is trying to shoot. *A* maneuvers as best he can to get a shot with the aid of *B*, who may not shoot but may pass the ball to *A*. After *A* has his turn he replaces *B*, who replaces *O*, who replaces *A*, and play continues.

Recovering Free Balls (Defensive and Offensive)

Ability to recover free balls depends in part upon quickness and speed, which can be improved but little through practice, but it also depends upon other qualities, proficiency in which is definitely increased by practice. These are the characteristics developed through practice which mark the player who is skilled in recovering free balls: alertness, judgment of when to try to get a loose ball, willingness to accept floor burns and bruises but skill in avoiding them, and ability to maintain body control while picking up the ball.

In recovering loose balls, the player should keep the feet well spread, the knees bent, and the body bent at the hips. Preliminary practice should consist in picking up the ball from various positions without a competitor. As the retriever becomes more adapt, he should pick up balls as quickly as possible, that is, while moving at full speed. This might be followed by practice in recovering free balls against a competitor. If possible, the player should step between the opponent and the ball while moving toward it. Since this last phase of recovering is rather rough and consequently may result in bruises or floor burns, it is not stressed a great deal by many coaches. They emphasize alertness instead and expect their players to make up in alertness what they miss through lack of practice in actual scrambles for the ball. They reason that the player will lose none of the willingness to get the ball in scrimmage, where possession

of it actually means something, by being relieved of the necessity of getting the possession of it in a drill where possession may not be worth the bruises and burns that may attend battling for it. There is much in favor of this point of view, but occasional drills involving battles for free balls are worth-while.

DEFENSIVE SKILLS

Guarding

Guarding is one of the two major ways of preventing the opponents from scoring. It consists in making the opponent's passes more difficult to complete, intercepting passes, tying up the man with the ball, and otherwise limiting opportunities to shoot at the basket.

The first and most important rule to follow is this: *A guard should stay between his man and the basket.* This can be done more effectively if the feet are kept well apart, the knees bent, the body bent forward with the weight well-balanced over the feet, and the arms held out and slightly downward with the elbows slightly bent. To maintain the position between the opponent and the basket, the guard should take the short cut as the opponent tries to maneuver around him to the basket, and should shift to the side by stepping sideward. He should try to avoid crossing the feet. It is best to keep down low. He should not jump up into the air or rise onto his toes with his arms stretched up into the air as the opponent attempts a shot. If he does, the opponent may get around him. As the opponent attempts a shot the guard should step toward him without losing his balance and raise one hand up between the opponent and the basket, while keeping the other hand down and back to help maintain balance. It is best to avoid rushing a man or playing him too closely until he has dribbled. After he has dribbled it is sound defense to move in closer to him but not to become careless, or he may pass to another man and step past the guard toward the basket for a return pass.

Despite a guard's best efforts there will be times when the man he is guarding is as close or closer to the basket than the guard is. Then, as the opponent moves on toward the basket, the guard should try to outrun him and get alongside him if possible. The guarding maneuver consists in swinging upward at the ball trying to spoil the dribble or the

shot, while being careful to avoid body contact. It is better to attempt to break up the play before the man shoots, if possible, for if one fouls a man when he is dribbling he generally gets but one free throw; if while he is shooting, he gets two free throws.

At times there may be two men to watch for a few seconds. In that case, the defensive man should stay between the ball and the basket, but also let neither man get under the basket alone. If the two men are breaking for the basket, the guard should fade back with them as they approach, feinting at the man with the ball and then hurriedly returning to the other man as they near the basket. If the two men play it right they will get a basket; if they do not (and they often do not) one man may stop two. The job of the defensive man is to prevent them from getting a good close-in shot. If one of them wishes to shoot from a short distance out, there will be little chance to stop him unless he makes some bad mistake. Many players miss such shots anyway, for they feel that they ought to work the ball in closer and do not shoot whole-heartedly. For that reason it is a good idea to let them shoot from a short distance out if they will.

Recovering the Ball From the Opponent's Backboard

This is the other important means of stopping scoring threats. The team that controls the ball prevents the opponents from scoring. Few, if any, teams succeed unless some of their members are well drilled and competent in executing this fundamental, for it is necessary to get the ball to keep the opponents from following in and shooting. It is not necessary for every team member to be adept at this skill. Instead, it is generally the task of the big boys, for they have a natural advantage due to their height and weight. All players, however, whether large or small, can recover some balls from the opponent's backboard. They will recover many more if they play it right than they will if they play it wrong. When a shot is taken, the first important maneuver consists of getting into the right spot first. That often means stepping between the man one is guarding and the spot to which the ball will rebound, or stepping into the position the opponent will want to occupy. That forces him to assume a less favorable position and decreases his

chances of getting the ball. After attaining the position one desires, or having failed to get it, he should jump up and catch the ball as high as he can. The player who waits for the ball to come down to a position where he can get it just by reaching for it while standing on the floor is likely to find that an opponent who jumped for it has the ball. As a general rule, a player should not bat the ball about under the opponent's basket. He should get hold of it. As he jumps for the ball, he should keep his legs spread far enough apart so that he will not be thrown off balance if someone bumps him. As he lights with the ball, he should reach out and maneuver it close to the floor, bend at the hips and turn away from the opposition, feint with his body and with the ball, and dribble or pass out to the side line if he is hard pressed. If not hard pressed, he can pass or tip the ball directly to a teammate to start a fast break.

Team Defense

Although team defense consists of coordinating the various individual defensive efforts into an integrated whole, it depends less on team cooperation and more on individual ability than does team offense. That is, five strong defensive players who have never seen each other before can present a strong defense in short order; however, five strong offensive players will need to practice together for a considerable period to develop a good offense. This is due to the fact that there are fewer small-muscle, fine coordination skills in defensive play than in offensive play. The big-muscle, rugged, defensive skills need less fitting together to become effective, for there is less chance to make up for individual weaknesses by cooperative effort in defense than in offense. This is not by way of saying that cooperation in defensive play is unimportant, but rather that it requires less stress than does cooperation on offensive play. Even in the man-for-man type of defense it is necessary to work with the rest of the team according to an established pattern. In meeting a screening offense it is often advantageous to shift men. The man who is screened off from his offensive man calls "shift." He then takes the man who is screening him and his teammate takes the offensive man cleared by the screen. On other occasions, especially fast breaks, a guard will have to take some other man than his own. Then

it is necessary for the rest of the team to pick up the other opponents as best they can until the defense can be organized. It is generally a good plan to pick up the men closest to the opponents' basket first, and thus stop the offensive threat until other players of one's team can get back into defensive positions.

On held balls when the other team has the tip or is likely to have the tip, one's team is predominantly on defense. The problem involves trying to outguess the other team and get the ball, but in so doing to maneuver about in such a way that the basket is still well guarded in case the opponents get the ball. That means that there must be an additional man on the defense after the tip. One method of arriving at this situation consists in having the forwards and one guard rotate around the jump ball in roughly a triangular pattern; with one forward moving toward his basket, the other forward moving toward the opponent's basket, and one guard moving across behind his teammate who is jumping. The remaining guard stays well back on defense. Another method which stresses defensive play more and offensive play slightly less provides for the two forwards moving as above on the tip, with both guards well back on defense. Both of these plans leave three men in distinctly defensive positions after the tip.

Out-of-bounds plays from the defensive half of the court present additional defensive problems, for the ball is often behind some of the defensive players, thus providing favorable opportunities for the offense to work set plays or to break men into the open near the basket. A sound, easily managed, team defense for out-of-bounds plays consists in pulling the whole team back toward the defensive basket. This will permit the offensive team to throw the ball in to a man in the corner, off to one side, or out in the front. Then the defensive team can go immediately into its regular defensive position, being careful to cover quickly the man who receives the ball.

There are opportunities to cooperate in taking the ball off of the opponent's backboard. Even though one or two big men are largely responsible for getting the ball, the other team members have responsibilities. They can increase the chances of their own men getting the ball by

screening out the opposition from the basket. This is done by taking first the position that the opponent is likely to want to take. Many balls from long shots bounce out over the heads of the men close to the basket. It is the responsibility of the other defensive players to move into positions where they can get those balls. It is no more correct for a defensive player not under the basket than it is for one who is under the basket to stand where he is when a shot is taken and see if the ball will not come to him. He has the responsibility of moving into a certain area or zone or to the spot where the ball is likely to come if he is not already there.

Zone Defense

The zone defense is decidedly a team effort wherein each man is responsible for certain zones, depending chiefly upon the position of the ball but to a limited extent on the position of the offensive players. A team with two or three big awkward men often does better with a zone defense than with a man-for-man defense. A zone defense need not be very complicated, and consequently requires much less time to learn satisfactorily than does almost any other type of defense. There are many different varieties of the zone defense but all of them are much alike in principle. A good defense must, of course, provide sufficient opposition for the other team's offense. Any zone defenses that can provide such opposition with a minimum of shifting in the positions of the various players is better than one that requires much shifting; for if one or more players must shift too far when the ball is moved from one side of the court to the other, the offense can tire them out by passing the ball back and forth.

Most zone defenses have a starting or original position into which the men line up if they have sufficient time. They then shift from that position according to the position of the ball and the maneuvers of the opposition, aiming to keep one or two of the defensive men between the ball and the basket. When the ball is passed to one side of the court most of the defense shifts to that side of the court, leaving about one-third of the court on the side opposite the ball largely open or unguarded. If the ball is passed to this open side the defense then shifts over to that side. If the ball

is passed in deep the men out in front usually pull back toward the basket, while the men further back move toward the ball. It is good practice for players in a zone defense to stand with their arms outstretched to the side as the offensive players approach them with the ball.

For purposes of illustration the following zone defense is explained. The defensive players line up with two men about two steps in court from the basket and about 3 yards apart; a third man lines up at about the free throw line; and the two remaining men about as far out as the front of the free throw circle and about 4 yards apart. If the ball comes down the middle, one of the front men steps over between it and the basket and the other men shift but little. If the ball is then passed to the left side of the defense, the front man on that side goes out toward it; the other front man drops back a step and to his left; the left back man moves farther out toward the left side and the right back man moves to his edge of the free throw lane. If the ball is then passed to the right the team shifts to the right with the men on the right side moving farther out and those on the left shifting over until the defense has moved toward the right instead of the left. If the ball is then passed deep in and across court to the left, the left back man moves out to the ball, the center man moves back and to the left far enough to back up the guard who is on the man with the ball, the right back man moves to the free throw lane, the left front man moves back toward the basket, and the right front man moves back to about the free throw line. In general, whenever the ball is closer to the basket than any defensive men, those men move toward the basket.

RATING PLAYER PERFORMANCE

Authorities on learning point out that the learner makes more progress if he knows what mistakes he is making than if he does not know about his mistakes. Besides that, he is stimulated to greater effort if he knows how well he is doing in comparison with the rest of the group. In basketball the players know, in a general way, the mistakes they make, and how well they compare with the other squad member, but when a scrimmage or game is over they have difficulty recalling specifically what they did the right way

and what they did the wrong way. Almost all coaches and players have some specific information on performances, such as how many points each man scores and how many fouls he commits. A number go still further and plot shots taken from various spots on the court with notations concerning those made and those missed. Rather than just trust to their memory some few coaches check carefully and keep records on the performance of many of the important basketball skills. This is an excellent procedure and well worth following, for it eliminates much guesswork.

A satisfactory method of checking and recording player performance should require comparatively few scorers (not over two or three), rely relatively little upon the opinions of the scorers, and still present adequate evidence on performance of skills under game conditions. Any method that requires too many scorers is not practical, and any system that depends upon the *opinions* of scorers is inaccurate. In accordance with the above considerations a relatively exact direct system of evaluating and recording player performance is presented. Successful teams and players do certain things and avoid quite largely doing other things. Those who can perform the acts that make for success and reduce to a minimum the errors that make for failure are valuable players on a team. What are the acts that must be performed by successful teams? They must score points; gain possession of the ball by taking it off the backboard, recovering fumbles, intercepting passes, tying up the man who has the ball, recovering the ball after the jump; and keep possession of the ball until they get a scoring chance. What are the acts they must reduce to a minimum? They must reduce to a minimum missed shots (from the field or free-throw line); loss of possession of the ball (by bad passes, fumbles, traveling, stepping on lines, etc.); baskets made by the opposition; personal fouls committed; and times they are tied up with the ball. In order then to make a record of the performance of a player under actual game situations, it is necessary to check him on the points mentioned above. These points can be grouped under two headings; those that count *for* him and the team and those that count *against* him and the team; that is, those that make for team success, called "for" items, and those that handicap a team in its effort to succeed, called "against" items.

Listed below are the "for and against" items consolidated under comparatively few headings in order to make it more convenient to keep the records. They are not summarized so much that many essential facts are hid. The points given for performing each act are listed after their respective acts.

The points *for*:

1. Making a basket - - - - - 3
2. Making a free throw - - - - - 1.5
3. Gaining possession of a loose ball
(off backboard, intercepting pass,
recovering fumbles) - - - - - 1
4. Tying up man with ball - - - - - .5
5. Gaining possession after jump ball - - - - - .5

The points *against*:

1. Missing a shot (from the field or free
throw line) - - - - - 1
2. Losing possession of ball
(through fumble, bad pass, or violations) - - 1
3. Committing personal foul - - - - - 1
4. Letting one's man score a basket - - - - - 1
5. Getting tied up with the ball - - - - - .5

Points For:

1. The final outcome of all basketball games is decided on the basis of total points scored. Therefore, players are given three points for each successful field goal to encourage scoring. Since each man will eventually find that shots which are missed detract from his score while shots made add considerably to his score, the player who is inclined to take poor percentage shots will tend to wait until he can get into a better position to shoot. This will make for better team play and eventually more good scoring opportunities.

2. One and one-half points are given for each successful free throw, for they each count one-half as much as a basket, for which three points are given on the chart.

3. By gaining possession of the ball, a player is making an indirect contribution to the final score. A team cannot score while the other team is in possession of the ball, but it can get the ball by taking it off the backboard, intercepting a pass, recovering an opponent's fumble, etc. Hence, the player gets one point for gaining possession of the ball.

4. Another possible method of getting possession of the ball is to "tie up" the opponent so that there will be a "jump ball." Since this is a possible aid, but not a certain means of gaining possession, the player is given one-half point for forcing a "tie ball."

5. When there is a "jump ball" the opponents have an equal chance to gain possession; consequently, the player who gets the ball after the jump deserves some credit. He may get the ball on a direct tip, or he may have to join in a scramble for it. One-half point is given to the player who recovers the ball, since recovery is as important a part of gaining possession as tying up the ball.

Points against:

1. When a player misses a shot he loses a scoring opportunity and the opponents have an equal chance of getting the ball off the backboard except on some few throws. In the event the opponents get possession of the ball this is likely to result in a scoring opportunity for them. So the player who misses the shot, whether on an attempt for a field goal or a free throw, is penalized by having one point recorded after his name on the "against" card.

2. When a player loses possession of the ball he must be penalized, and since any loss of the ball gives opponents possession, each loss is penalized by the same demerit; one point on the "against" card.

3. If a player commits a personal foul he gives the opponents a scoring opportunity which, if missed, still leaves them the possibility of gaining possession of the ball. Consequently, one point is taken off the score of any player who commits a personal foul.

4. It is always important to keep the player one is guarding from scoring, but since teammates frequently change men in guarding, it is hard for a scorer to tell just which

defensive player is at fault. Because of this matter of judgment on the part of the scorer, it is better to make the scoring of the defense simple and to take one point from the score of each player every time his man scores a basket, especially in an intrasquad scrimmage. Some types of defenses, especially the zone defense, do not lend themselves to the use of this item on the scoring chart.

5. A player must be conscious of the importance of not letting an opponent tie him up with the ball. But since getting "tied up" may not result in loss of possession, and since it is desirable to keep the scoring as simple as possible, one-half point is taken from the score of each player who gets "tied up" with the ball.

Since correct ball handling and guarding maneuvers in a game are, to quite an extent, a matter of opinion, and hence very hard to judge objectively, and since passes and guarding attempts occur so often that more men than are generally available would be required to score them, they are not recorded. Instead, the number of major errors made in the execution of these two skills are recorded. The player is evaluated according to the errors he makes, rather than according to the times he performs the act satisfactorily. Collection of extensive detail is eliminated here in favor of a more practical, usable method of evaluating passing and guarding performance. If these skills were used but little in a game and if errors were more prevalent than satisfactory performance, this method of evaluating them would not be recommended.

The individual items that are checked in evaluating player performance appear below on the "for" and "against" cards.

For Card					
Name	BB	OP	T.B.	RTB	SCORE
Black					
Brown					
Green					
Jones					
Smith					
White					

BB - Takes Ball off Backboard
OP - Other Possession

T.B. - Ties Ball

RTB - Recovers Tie Ball

AGAINST CARD					
Name	S	F	BP	V	T.B.
Black					
Brown					
Green					
Jones					
Smith					
Adams					

S - Missed Shot

F - Fumble

BP - Bad pass

V - Violation (Double Dribble)
Traveling Etc

How to use the "for" and "against" cards: When a scrimmage or a game is to take place, a manager or assistant is given a rectangular card 5 by 8 inches, like the "for" card above. This card is arranged with a place for the players' names and the several items on which they can gain points. The manager places the names of the players alphabetically on the card, sits at the side of the playing floor, and checks in the proper space after each player's name the various points made. One mark is placed in the proper square for each performance of the skill. It is well to have a coach or helper nearby to aid the manager when he scores his first scrimmage in order to familiarize him with the system of scoring.

A manager and a card are also needed for checking the points "against" the players during a game or scrimmage. The size of the card is the same as in the points "for" and the procedure is the same in marking the card, but the points are errors made by the player instead of so-called good plays. It is also well in this case for the manager to have a helper during the first scrimmage he scores.

SUMMARY CHART

	For							Against							Totals		
	1	1	3	5	3	1 1/2	-1	-1	-1	-1	-1	-1	-1	For	Against	Score	
	BB	OP	T.B	RTB	B	F	S.	F.	BP	V.	TB	P.F.	MS				
Black	7	1	3	2	1	3	1	0	0	0	2	1	0	0	0	1	
	3	6	0	0	2	0	2	0	3	0	1	0	0	0	0	1	
	12	6	2	3	0	0	1	0	3	0	2	3	1	0	0	1	
Brown	6	4	1	0	2	1	10	3	1	0	0	3	1				
Green	8	1	4	4	3	2	12	0	4	0	0	3	2				
Jones	3	1	2	0	5	0	15	0	2	0	0	2	3				
Smith	9	0	2	2	4	2	4	1	0	0	0	3	1				
White	17	2	0	1	2	2	7	0	0	1	1	1	3				

Information for this chart is taken from three sources: (1) the "for" card, (2) the "against" card, and (3) the score book. The totals for each item on the "for" card and on the "against" card are placed under their respective headings on the chart after each man's name. From the score book,

B. (baskets made), *F.* (free throws made), and *P.F.* (personal fouls made) by each man, are recorded on the chart after his name. If the defense is of the type which lends itself to placing the responsibility on an individual player for the baskets his man makes, then the *M.S.* (baskets his man scores) column is also filled in on the chart.

The "for" section of the chart is totaled for each man by multiplying the points awarded for each act by the times each act is committed, and then adding all "for" points together. That is, on the chart which has hypothetical scores for the men listed, the scores after Black's name in the upper left-hand corner of each rectangle which represents one hypothetical scrimmage should be figured as follows: $7 \text{ B.B.} \times 1 = 7$; $3 \text{ O.P.} \times 1 = 3$; $2 \text{ T.B.} \times .5 = 1$; $3 \text{ R.T.B.} \times .5 = 1.5$; $3 \text{ B.} \times 3 = 9$, and $1 \text{ F.} \times 1.5 = 1.5$; total = 23.

The "against" section of the chart is summarized in the same manner. Score is obtained by subtracting points "against" from points "for." The result may be positive or negative. This final score is a sort of index number that can be used as a summary evaluation of player performance.

For Black alone the hypothetical scores have been recorded for more than one scrimmage. His scores have been recorded for six scrimmages to illustrate the method of recording. The results of the first scrimmage are recorded in the upper left-hand corner of each square, the second in the upper right-hand corner, the third just below the first, and fourth just below the second, etc. To aid in recording, a fine line can be drawn across the chart, under the figures representing the number of times each act was performed during scrimmages.

Conclusions Concerning the Summary Chart:

1. The material for the chart can be collected by two assistants during games or scrimmages.

2. The chart deals in factual material rather than in the scorer's evaluations and opinions.

3. The chart does not present all the evidence of basketball ability exhibited by the players scored, but it does present a large share of it as far as the execution of physical skills under game conditions is concerned.

4. This device does not claim to measure those characteristics that are essential in the "spark plug" of the team, except in so far as they are included in the end products listed on the chart.

5. The chart provides a very convenient summary of facts that should stimulate players to improve, for major errors in the execution of skills committed by each player during competition are recorded. The player can see wherein he has failed and, consequently, what he needs to practice to improve his play.

6. Coaches can use the chart to point out to the players the skills which they need to practice and to help decide which players to use.

7. Using the facts from the chart tends to rule out a large amount of prejudice in judging players; some players are overrated because of flash or because of ability to perform a certain skill just the way the coach wants it done; others are underrated because of lack of flash or because of performing a specific skill in a way that the coach does not like.

Chapter VI

BASEBALL AND SOFTBALL

Abner Doubleday is credited with originating baseball in Cooperstown, N. Y., in 1839, but there is reasonable doubt that he did it. Baseball probably developed more or less gradually from cricket or from other games which grew out of cricket. It did not burst forth as baseball all at once in 1839, but came to be baseball little by little over a period of years extending from well before 1839 to well after 1839. The Knickerbocker Club of New York did much to standardize the game. Alexander Cartwright probably deserves more credit for drawing the plans for the diamond and establishing it than does Abner Doubleday. However that may be, the Baseball Hall of Fame is established at Cooperstown, and Abner Doubleday is recognized as the official founder of the game. The important fact about baseball is not who introduced the game or where it was first played, but that it is our national pastime. Unlike basketball, which was invented in college and grew to prominence there, baseball developed, for the most part, among nonschool groups. Schools took it up readily, however, and from shortly after the Civil War until the early twentieth century, baseball stood out as the favorite school sport. More recently football and basketball have largely supplanted it. In the past few years there has been a revival of interest in baseball in schools, but now softball is a strong competitor during the spring of the year. As a professional sport baseball commands more public interest and provides more good salaries than any other game in the United States.

OFFENSIVE SKILLS

Batting is the major offensive skill in baseball. Any amateur team can find a place for the player who is an excellent hitter, for it is possible to teach him enough about the other skills to enable him to get along in some defensive position. It is very difficult, although not always impossible, to make a good hitter out of a poor hitter, be-

cause many players have established their batting habits by the time they become members of a high-school or college team.

Incorrect habits become just as much a part of one's batting performance as do correct habits. In other words, a habit is a habit whether it is good or bad, and it is hard to change. For that reason boys should be taught how to bat when they are in the elementary school. Such early training will keep them from learning many batting faults which will handicap them later.

There are certain important fundamentals which should be taught to all beginners. Not only should the young player understand what to do, but he should also be able to put the right theory into action. That means much practice with a competent coach available to check up on errors. These are the fundamentals for the batter to learn:

1. *An attitude of offense:* That is, the feeling that he is going to make it tough on the pitcher, that he will hit the ball hard. Too many players are on the defense the moment they step into the batter's box. They are afraid that the pitcher will strike them out. The real hitter is the one who is anxious for a chance to get up there and hit that ball. The question with him is what he will do to those pitches, not what they will do to him. He has the attitude of attack.

2. *To take a good, firm, well-balanced stance at the plate:* This stance should be just opposite the plate with the front of the body almost parallel to an imaginary line from the pitcher to the plate and about 6 inches from the plate. The feet should be spread from a foot to 18 inches and most of the weight should rest on the rear foot (the one farthest from the pitcher.) The knees should be bent slightly.

3. *To grip the bat correctly:* Most batters grip the bat with both hands close together, but some very successful hitters have held the hands about 6 inches apart. The swing hitter, who expects to hit the ball far, grips the bat near the end. The chop hitter, who emphasizes hitting it rather than hitting it far if he does hit it, grips the bat farther up. The batter must be sure that he has a tight grip on the bat when it meets the ball. This does not apply to bunting, where the bat is held loosely in the hands.

4. *To keep his eye on the ball:* The batter should watch the ball carefully until it meets his bat if he hits it, or until it passes the plate if he does not hit it. Even an easy straight ball can be hit more successfully if the batter watches it right up to the plate, for his body remains in better position if the head is not turned away. Any turning or jerking of the head tends to pull the arm swing out of line and to spoil control. Anyway, most pitched balls are not easy, straight ones, but instead change their direction just before reaching the plate. Some drop, others curve, and still others hop. The batter who turns his head away when the ball is 10 or 15 feet from him can hardly hope to hit one that changes its course. It is essential that the eyes follow the flight of the ball and that the head be held in place rather than jerked around to the side. There is a certain spot close to the plate where a batter loses sight of a fast pitched ball, but he should watch it as long as he can.

5. *To step into the ball:* Most good hitters take a medium-sized step toward the pitcher as they swing at the ball. Of course, the position of the ball will make some difference, especially if the hit and run is on and the ball must be hit if possible, even though it is a bad one. This will affect the direction of the step somewhat. As a general rule the batter should avoid stepping away from the ball with the front foot as he swings at it. This is very important. He should also avoid extreme knee bend as he steps forward.

6. *To swing on a line with the pitch:* As the ball approaches the batter should draw the bat back without extra flourishes or body twists and swing it directly forward into the ball. Round-about swings or strokes that come up across the ball or down at it are likely to miss entirely or result in a poorly hit ball.

Many players swing too soon but some swing too late. Moving picture analyses of good hitting show that the ball is met ahead of the body. That is, closer to the pitcher than is the body of the batter. The arms are swung forward, and the wrists then flip the bat into the ball. The ball is often met ahead of the plate. The batter should watch the ball and get set to swing but wait until he is sure it is a good one and then swing with his arms forward and snap the bat into the ball with his wrists.

Special Hitting Situations

1. *Bunting*: There are a number of situations in baseball that call for a bunt. Perhaps the most common use of the bunt is for the purpose of advancing a runner from first to second base in order to place him in the scoring position. The batter sacrifices for his teammate by bunting a good ball and taking the 90 per cent chance of being thrown out at first, while the teammate advances to second. Another important opportunity to use the bunt arises with a man on third, one out, and a run badly needed by the team at bat. Here the squeeze play is used. It may be used like any other bunt play, with the batter waiting for a good ball and then bunting it carefully so that the runner from third will have time to score before the ball can be fielded and thrown to the plate. Or it may be used as a hit-and-run play wherein the runner dashes for the plate on a designated pitch. Then the batter must try to bunt whatever pitch is made. All he needs to do is to keep his bunt fair and on the ground, for the runner will be almost home when the bunt is made. Some fast, wide-awake players make good use of the bunt by catching the defense off guard and beating out a well-bunted ball for a hit.

How to bunt: The batter should take the regular stance at the plate and get ready. Just as the pitcher is ready to release the ball, he should lower the bat and shorten his grip on it, crouch partially, and turn so that he more nearly faces the pitcher. If he must try to bunt it because the coming play demands a bunt, then he tries it even though it is not a strike. If he may choose (as he generally may), he should follow the ball closely and make it be in there. The low strikes are the best balls to bunt. As he bunts he should hold the bat loosely in his hands and draw it back slightly or let it give as the ball meets it. He should aim to roll the ball slowly down inside the first or third base lines, because those areas are difficult for the defense to cover. After he has bunted he must run for first base as fast as possible. Even though he is sacrificing for some other player, he should get to first if he can. Any batter who is too lazy to run out every ball he bunts or hits in a game should not be playing baseball. Other players do make errors and the alert player can cash in on them by getting

to first as soon as possible. He should be very careful in bunting to avoid pop-ups or short pop flies which are almost sure to result in outs and occasionally result in double plays.

2. *The hit-and-run:* This play, which probably should be called the run-and-hit, is used to pull some infielder, generally the second baseman but sometimes the shortstop, out of position. The runner on first breaks for second as if to steal, and the batter tries to hit the ball through the position of the man who covers second. The play can be worked most effectively when the pitcher is in a hole, that is, when he needs to make the next pitch a strike. A particularly favorable situation for the play is present when the count is three and one (three balls, one strike), the batter is a good place hitter, and the man on first is a good base runner. The signal for the hit-and-run play is given. The runner on first breaks for second as soon as he is sure the pitcher is throwing the ball to the plate. The batter then tries his best to hit the ball on the ground at the position of the man who is covering second base on the play. The batting team should know which man is likely to cover second base. If the play succeeds and the ball does roll through the infield for a hit, the man who was on first should get to third, especially if the ball is hit through the second baseman's position, which is the customary place to hit it.

The Batting Order

Each school team has a few players who are better batters than most of the others. Besides that, various players have different batting and offensive skills. Some players, however, can do very little to help the scoring power of their team. The proper batting order is one which provides the greatest number of opportunities for each player to use his special abilities in efficient combination with the abilities of the rest of the team, and brings the good hitters to bat more often than the poor hitters. This is done by placing good hitters at the head of the batting order. In general, the following order, based on player abilities, is recommended.

First batter—a good judge of balls and strikes and a good “waiter” (one who will make the pitcher get the ball over the plate). He should be a good base runner and at least a fair hitter. His big job is to get on base.

Second batter—a sure hitter rather than a long hitter. He should be able to bunt and place-hit. His big job is to move the first batter into a scoring position.

Third batter—one of the two best hitters on the team. He should be able to hit the ball far and often. His main job is to bat in runs.

Fourth batter—the clean-up man, the real slugger of the team. He should be the man best qualified to bat in runs.

Fifth batter—a long hitter. This is the place for the fellow who hits the ball hard when he connects but is more likely to fail to hit than number three or four.

Sixth batter—the same type of batter as the first man up, with more emphasis on longer hitting and less on running.

Seventh batter—probably one of the poorer hitters.

Eighth batter—another weak hitter.

Ninth hitter—probably the pitcher, unless he is a good hitter, in which case he should be placed in the batting order according to his ability, on a school team, for he is likely to play some other position while not pitching. The big job of the last three hitters on many school teams is to keep from getting put out.

Base Running

Inexperienced base runners must guard against the tendency to relax when they reach a base. The time to do that is after they reach home. Too often the runner is likely to feel so well satisfied with himself for getting on base that he becomes careless and gets picked off. First base is really the starting point for base runners; they are still batters until they get there. Alertness is of major importance in advancing and in keeping from being put out.

Getting a Lead

Speed is, of course, important in running bases, but of equal importance is getting a lead and a quick start for the next base as soon as it is safe to start. The runner should know where the ball is before he steps off the bag. The baseline coaches are largely responsible for telling the

runner where the ball is, but that does not relieve him of the necessity for being alert also. When he sees that the pitcher has the ball and that he is on the pitching rubber, the batter should take his lead. Experienced players can venture two steps and a slide from the bag. Less experienced and slow men may have some difficulty if they get that far off the base. During practice sessions players should work on getting back from as great a distance away as they can. If the player is two steps and a slide away, the first step in getting back is made with the right foot, the second with the left, and then the slide is made to the outside of the bag, taking off from the left foot and hooking base with the right foot. This routine can be learned with practice so that it can be executed more quickly. If a player finds that he is not fast enough to get back from this distance, he should take a shorter lead. As the runner takes his lead, his feet should be well spread, his knees bent, his body bent at the hips, and his arms held down and to the side with the elbows bent so as to help maintain good balance. He should face the pitcher. He can increase his lead and be ready to run as the ball is pitched, but he must not get far enough from the base that the catcher can pick him off if the batter does not hit the ball.

Running

As pointed out above, it is important to get a fast start at the right time, that is, soon enough to take advantage of all the time possible but not soon enough to be caught off base. It is essential to bend the knees and keep the body fairly low to get a quick start. After a few comparatively short, hard, driving steps the body is raised into the natural running position. The player should run as hard as he can. There is no time to waste. He should not slide to gain time, for sliding slows one up. If he slides it should be to keep from being tagged or from overrunning the bag. He gets to base fastest by running to it unless he used the dangerous head-first slide, which is not recommended. If running farther than one base, he should swing out before reaching the base around which he expects to turn and make the turn by using a cross-over step with the right foot before reaching the base. This will enable him to run more directly toward the next base, and will make the total distance to travel less

than if he ran straight over the first base and then turned toward the next one.

The Slide

The runner may slide head first or feet first. The head-first slide gets the man to the base sooner than the feet-first slide, but is more dangerous in that the player receives a more severe jolt as he hits the ground, and the hands or arms may be injured by the baseman stepping on them. Were it not that tradition requires sharp spiked shoes, baseball might be played in high school, on sand lots, and even in college with safe rubber cleated or composition soles. Until shoes of this type are in more common use, the head-first slide is too dangerous to put into regular practice. The slide to emphasize is the feet-first slide to one side or the other of the bag. It is less dangerous to slide to the inside or outside of the bag than to slide straight into the bag. Then, too, the runner is harder to tag with the ball if he slides to the side away from the player defending the bag than if he slides directly into it. As the runner approaches the bag, if he has decided to slide he should go through with it, for if he does not he is liable to get an injury through catching a spike or otherwise turning a leg. If the baseman steps to the inside of the base to take the throw, the runner should slide toward the outside. If the baseman steps to the outside to receive the throw, the runner should slide to the inside. In actually sliding he should take off at such a distance that he will slide well up to the bag but not past it. Experience will teach him how to regulate the distance. In sliding to the inside he should slide on the left leg and hip with the knees bent and be sure the heel spikes do not catch the ground. He can then reach out with the right foot and hook the base. The upper body weight can be supported partially on the left hand at the end of the slide. In sliding to the outside the slide is made on the right leg and hip, and the base is hooked with the left foot. Before trying to slide in a game, it is advisable to practice sliding until the movements become natural. It is a good plan to slide in a sawdust or sand pit where the chances of injury are small. Sliding pads are essential equipment in the prevention of leg bruises and skin burns known as "strawberries". Any new skill like sliding that may prove dangerous if tried at

full speed should be practiced in parts and rather slowly at first until the player gets the feel of it. Then he can gradually speed up until he can do it at full speed.

General Suggestions on Offense

The player should remember:

1. To make the pitcher throw strikes, and not to hit at bad balls.
2. If the count is three balls and no strikes, not to hit at the next ball pitched.
3. To try to meet the ball squarely rather than to try to knock it a mile.
4. To practice batting. That is the way to learn it.
5. To ask the coach and teammates to check up on his batting form.
6. To study the opposing pitcher and other defensive men to learn their weaknesses.
7. To encourage other team members.
8. Not to take unnecessary chances on the bases.
9. To keep thinking; to figure out ahead of time what to do in each situation that may arise because of what the batter or the defense does.
10. To take a chance, providing he stands to gain much if his effort is successful, and to lose less if it is not.
11. That he should know how many are out and what the score is, and play accordingly. If three runs are needed late in the game there is little use in playing for one by a sacrifice.
12. To slide on all close plays where he must maintain contact with the base.
13. To listen to his baseline coaches.
14. To study his team's signals, to watch for them, and to follow them.

DEFENSIVE SKILLS

Unlike offensive baseball skills, which are essentially the same for all players, defensive skills are more specialized. Some skills are common to all positions, but each position requires additional abilities or a different application of the abilities. For example, all players throw, but different positions require different types of throwing. The two most specialized players are the catcher and the pitcher. The next is the first baseman. The remaining players can be grouped for purposes of discussion into types, since the members of each type have much in common. We shall call them other infielders (the second baseman, shortstop, and third baseman), and outfielders, (right fielder, center fielder, and left fielder).

The Catcher

The catcher is the field general. He alone sees the whole field of play before him. It is his responsibility to direct the defensive effort of the team. This means that he must have sound baseball judgment, confidence, and leadership. His position also demands unlimited courage. Other qualifications include size, for the tall man can reach farther to the side and higher than the short man; quickness, for on many occasions he must move in a hurry; an excellent throwing arm, for he must do much hard, accurate throwing; and good endurance, for he has more to do than any other player on the team except the pitcher, and he usually plays more games than the pitcher. It is not essential that he be a fast runner. In addition to the above general qualifications the catcher must develop several specific skills which are discussed briefly in turn.

Catching balls: Most of the balls that come to the catcher are thrown by the pitcher. Some of them are right at him, others may be high, to one side, or low enough to hit the ground before they get to him. Some of them will be deflected slightly by the batter, and may hit his throwing hand. Hence the catcher must not only catch the ball, but in so doing he must protect his throwing hand. On many pitches he must be prepared to throw to a base as soon as he catches the ball. Consequently he should practice the

following methods of performing his skills. For balls well in reach he should keep the fingers on the throwing hand together and the side of the hand toward the pitcher, the little finger side of the hand on balls above the waist and the thumb side on low balls that do not hit the ground. For balls far on one side this is hardly possible and is not important, for the batter will not foul them anyway. For the balls that hit the ground he should turn the palms of both the gloved hand and the throwing hand toward the ball and drop down on the knees to get the body in the line of the ball. On all balls he should shift the body nearly enough in line with the flight of the ball to be in a good throwing position when the ball is caught, bend the knees and crouch while waiting for the pitched ball, and stay far enough back to avoid interference with the batter, but no farther.

Fielding his position: This includes catching foul balls and fair balls that come down near the plate, fielding ground balls that stop near the plate and throwing them to the proper base, covering home plate, and backing up first on certain throws from the right side of the diamond. In catching high fair or foul balls the catcher should throw off his mask as soon as the ball has been hit. If it is behind him, he should turn toward it and look up. Wherever it is, if he is going to attempt the catch he should get directly under it and wait for it. When he is directly under it he has more chance to get it if it curves or is blown one way or another as it comes down. Fly balls that come down midway to first or third base should be taken by a baseman, for he is less encumbered with extra equipment and is often in a better position to make the catch. With men on base the catcher must be ready to throw and know where to throw when the ball is caught. In fielding ground balls, he should pick them up with both hands, using the mitt to stop the roll if they are rolling, and execute his footwork so that as he comes up with the ball he is in a good throwing position. A good catcher watches the ball until he has it in his hands, whether it is a fly ball or a ground ball. He knows before the ball is hit what to do with it if he gets it. The catcher should be in a position to cover home plate unless a fielding play necessitates that some other player cover it at any time when a runner might attempt to score. If the runner comes in, the catcher should watch the ball until he has it

and then hold it immediately in front of the plate where the runner must come. Where there are no runners on base, he should back up first base on throws from right field or the second baseman.

Throwing to bases: The catcher must be ready after each pitch to throw to the proper base when any runner is on a base. He should so step that he can come quickly to a throwing position after catching the ball. As he catches low balls, high balls, or balls to one side, his hands should be moving toward the proper position from which to start a throw if possible. This position is in front of the chest or face. His feet should also be in position. On most throws the throwing hand is raised up to about the level of the ear and a little back, the glove hand is stretched out in the direction of the throw, the foot on the side of the glove hand is forward, and the knees are slightly bent. The ball is then snapped to the base. There should be no windup or other waste motion, for the throw must get there in a hurry. Since the runner must be tagged, the catcher throws so that the ball will pass over the base about knee high.

Signaling: Signals to the pitcher should be few and easy to distinguish. They should be carefully concealed from the opposing players. This is easy to do when there are no men on bases, but more difficult with a man on second, for he can look at the catcher from the same direction as the pitcher. The following signals are sufficient for most pitchers: one finger for a straight ball or an in-shoot; two fingers for an out-curve or drop, and a closed fist for a waste ball (one that is thrown wide of the plate in order that the batter cannot hit it). If the pitcher has an excellent fadeaway (an in-curve that drops away) or other special pitch such as a knuckleball, an additional signal may be advisable. In giving the signals, the catcher squats down, puts the throwing hand between the legs, and helps conceal it from the opposition with the glove. Then he flashes the signal to the pitcher. The method of signaling may be changed with a man on second by giving the signals that count with the glove (according to how it is held) and at the same time giving fake signals with the throwing hand.

The Pitcher

The pitcher is the most important player in a baseball game, for he is the key man in the defense. An excellent pitcher on a team that plays but once or twice a week is all the more important, for he can pitch almost every game. In organized leagues where the team plays six or seven games a week, one pitcher may be less important to the team than some other player, but he still remains the most important player in the games in which he plays. Evidence of this is to be found in the cases of outstanding pitchers who establish good records with losing ball clubs. Since the pitcher is so important, most players want to try their hand some time or another at pitching. The tall boy with long arms has a marked advantage in pitching, for he is likely to have more speed. Natural speed is a big asset. Then, too, the tall man can reach out closer to the batter, thus giving him less time to see the ball. Courage and confidence tempered with self-control are valuable assets for the pitcher. Stamina and strength are also a help. Anything that helps in control of the ball is important. It almost goes without saying that he must be able to think clearly and perform efficiently under fire.

There are several specific skills that a competent pitcher must be able to perform well. They will be discussed in turn.

Pitching to the batter: The first consideration in preparing to pitch to the batter is the stance on the pitching rubber. With no one on base the right-handed pitcher should stand with his right foot on and in front of the rubber, the left-handed pitcher with his left foot in the same position. The other foot should be principally behind the rubber but touching it. With a man on first and second unoccupied, the right-handed pitcher should have the heel of his right foot on the rubber and his left foot closer to the batter; with a man on second and third unoccupied, the right side of his right foot should be in contact with the rubber, and his left foot closer to the batter; with a man on third only, the stance is the same as with no man on base. The pitcher may safely use his windup with the bases filled or with a man on third or with men on second and third. Except in rare cases he does not use a windup with a man on first or second and the next base unoccupied.

The pitcher should conceal from the batter as long as he can the type of ball he is pitching. One method of keeping the batter in doubt is that of gripping the ball approximately the same for each pitch. A good grip consists of the first and second finger and the thumb holding the ball, which rests on the thumb side of the third finger. Each of the three holding digits should have contact with a seam if possible. Some trick deliveries require a different grip from the above. Another method of keeping the batter in doubt is that of using approximately the same general motion in delivering each type of pitch. A third aid in concealing the intended pitch from the batter consists in covering the ball with the glove as long as possible during preliminary throwing movements.

What can the pitcher do to make batters miss the pitched ball or hit it poorly? (a) He can throw it to the batter's weakness, to the spot where the batter cannot hit it well. This spot for most batters is low and outside. For many it is to the opposite side from the field in which they usually hit the ball. In order to do this, the pitcher must have control, which is one of the essentials of successful pitching. It comes more readily to some pitchers than to others, but in general it comes to those who practice faithfully. The ball should be thrown at some part of the catcher or of his equipment. Pitching at a spot is much better than just throwing in a general direction. (b) The pitcher can fool the batter by throwing the ball so hard that there is little time to judge its flight. This can be developed somewhat, but most pitchers either have speed or they do not, and there is not much that can be done about it. The player with a strong throwing arm has a good start toward being a pitcher. (c) An additional means of fooling the batter consists in deceiving him concerning the speed of the ball thrown. This spoils his timing. By developing a change-of-pace ball, one that is thrown with essentially the same motion as the fast ball, but held deeper in the hand and given less impetus through reduced wrist and finger snap, the pitcher can keep the batter guessing. The change-of-pace ball should not be thrown to weak hitters. (d) He can fool the batter by curving the ball. This is mentioned last because so many beginning pitchers believe that pitching success depends almost entirely upon ability to throw curves. That is not the case.

A good curve is important but so are control, speed, and a change of pace. To throw a curve, the pitcher should grip the ball as stated above between the thumb and the first two fingers. It is the release, or the final motion before letting the ball go, that determines whether or not it will curve. The final motion in throwing the curve consists in snapping the wrist and turning the hand, letting the ball roll off the thumb side of the first finger. If the throwing motion is overhand, the ball will curve out and drop; if the motion is side-arm it will curve out; and if the motion is underhand, it will curve out and may rise. Some pitchers add deception to their pitching repertoire by the use of a knuckleball which floats or drops depending on the method of release. It is held between the thumb, and the third finger with the first two fingers turned under with their knuckles against the ball. There are other deliveries with which young pitchers may want to experiment. However, concentration on the more standard forms of delivery mentioned above will probably yield better results in most cases.

Fielding his position: The pitcher must always be prepared to field bunts that come into his territory. With no man on base the throw is always to first. With men on base he throws according to instructions from the catcher. Although the pitcher must field both ground balls and low fly balls hit into his territory, he is not predominantly a fielder. He should let the catcher and basemen handle all chances that they can, since they are often better fielders than he is. On ground balls which the first basemen fields too far from first to beat the runner to the base, the pitcher must cover first. He should take the ball on the run and step on the base. On throws in from the outfield with a man attempting to score and another runner on base, the pitcher should get in line with the outfielder and the catcher in order that he may cut off the throw if it is too late or too far to one side. The catcher should advise him if he is to cut off the throw and make a play on the runner at second or third. Included also in playing his position is backing up third base when there is a play from the outfield on a base runner going to third. On plays at home when a runner is trying to score after a long foul fly has been caught, the pitcher should back up home if there are other men on base.

Holding men on bases: The pitcher has much responsibility in keeping men from stealing bases. He does this by preventing them from getting too big a lead. He pitches without a windup with a man on first or second base unless the next base is also occupied. He stands with the foot on the same side as his throwing arm on the pitching rubber and his other foot nearer to the batter. For a right-handed pitcher his left side is toward the plate. He brings both hands together in front of his belt buckle. From there he draws his pitching arm back quickly without extra motion and throws. He may throw either to a base or to the batter from the pitching position described above. He steps in the direction in which he throws. He should guard against a knee bend or any other motion that might indicate to the runner that the next throw is to be made to the batter. He should throw to first now and then to try to catch the runner off base or to hold him close to the base. If the runner must slide to get back the pitcher should throw to first often. He should throw to second but few times and most of these times a definite effort should be made to put the runner out. One guardian of second rushes to the bag and away again to distract the runner's attention. Then as he takes his lead again, the other covers the base and the pitcher whirls and throws. By prearranged signals all players involved know when the play is to be made. The right-handed pitcher pivots on his right foot, and turns to the first-base side; the left-handed pitcher pivots on his left foot and turns in the opposite direction. If the second baseman is to take the throw, the ball is thrown to his side of the base and he takes it on the run. If the shortstop takes the throw, the ball is thrown over the base to avoid hitting the runner. Since the runner must be tagged, the throw should be low.

The First Baseman

As in the case of all ball players, the first baseman should be alert and should know what to do next. He should be tall and have a long reach, for he must catch the ball, if possible, wherever it goes and still keep one foot in contact with the base. The tall man can reach out to meet the ball and get it sooner than the short man. His position requires three abilities in particular: He must be able to catch balls thrown to him, to field his position, and to throw.

Catching and handling balls: The first and most important requirement, that of catching balls thrown to him for put-outs at first, depends upon his ability to catch both good and bad throws. It is advisable to use two hands when possible in catching all balls. Some throws will be just right, some low, some high, and some to one side. Long hours of practice catching balls while shifting the feet are necessary to be able to handle any throw that is made to the base. He must be able to touch the base without looking at it, for his eyes must be on the ball. To receive the ball, he stands with one foot on each side of first base facing the thrower. If the throw is right to him he steps out toward it with the foot on the same side as his glove hand and touches the close side of the base with the other foot. If the throw is to the left, he shifts to the left with most of the weight on the left foot and touches the bag with the right foot. If the throw is to the right, the shift is made to the right with the left foot touching the bag. If the throw is so far away that he cannot catch it and keep contact with the bag, he should leave the bag and catch it. In some cases when such a throw is on the home plate side of first he may be able to tag a slow runner. In doing so he should use both hands. He must hold runners on first at times. To do this he faces the pitcher, keeping the rear foot near the close edge of the base. As the throw comes to him he catches it and puts the ball on the runner in one continuous motion.

Fielding his position: Fielding his position includes catching fly balls, as well as fielding ground balls. For high fly balls, either foul or fair, he should get directly under the ball and then shift if necessary to make the catch. With men on base he must be prepared to throw immediately after catching the ball. If time and the position of the fly ball permit, he should be in the proper throwing position as he catches the ball. With no men on base he should field ground balls hit into his territory and step on first if he can beat the runner or throw to the pitcher about shoulder high if the pitcher is covering first. This throw should be ahead of the pitcher so that he can take it in his stride as he is running for first. With men on bases the first baseman must be prepared to throw to the proper base after fielding the ball. For a double play at second and first he throws to second and then covers first for the return throw. In fielding

ground balls the baseman should get squarely in front of the ball, bend at the knees and hips, keep his eye on the ball, and pick it up with both hands. On bunts he must move in rapidly when the batter prepares to bunt so that he can field the ball if it is bunted toward first base. If it is not bunted toward first, he hurries back to cover the base. If it is bunted toward first base with runners on base, he listens for directions from the catcher as to where to throw it; with no runners on base he throws it to first base.

Throwing: The first baseman makes many throws during a game. They must be made quickly and to the proper place. For a double play or force-out, the ball should be about shoulder high. In starting a double play from first to second to first, he must avoid hitting the runner going from first to second. If the shortstop is covering the base, the throw should be just to the left of the base; if the second baseman is covering it, the throw should be to the right of the base. On plays where the runner must be tagged, the throw should be about knee high. With men on base he should be in the proper position and ready to throw as soon as he catches the ball. He, too, must learn to throw without a windup or other waste motion.

Other Infielders

The second baseman, the shortstop, and the third baseman have many skills in common, although some situations demand different types of play for each of these players. The third baseman must be alert on bunts. He should be able to field them and to throw to first quickly. The shortstop and second baseman must learn the double-play pivot technique. This involves catching the ball, pivoting or stepping to avoid the runner coming from first and to get into the proper throwing position, and throwing quickly to first. For balls hit far into the outfield, the second baseman and shortstop go out on their respective sides to relay the ball in. Besides the more specialized techniques mentioned above, the following general techniques are common to all of these infielders.

Fielding ground balls: These three players field most of the ground balls hit by the opposition. They must not only pick up the ball, but after picking it up must be in a position

to throw it. In doing this the second baseman can generally take more time than either of the other two players, for he is much closer to first. In fielding the ball or picking it up, the infielder should get squarely in front of it if he has time, bend at the knees and hips, keep watching the ball, and pick it up with both hands. It is well to take it just as it leaves the ground or at the height of the bounce. If the ball is to one side so that he cannot be ready to throw as he picks it up, he must shift immediately to a favorable throwing position. The throw should be made as soon as possible on slow hit balls, because the runner has had considerable time to run before the ball is fielded. These throws should usually be made to first even with a man on base, because it will be too late to get the other man in most cases. On hard hit balls the infielder has more time to make the play. If a double play is to be made or if it is a force-out, the throw should be about shoulder high. If the runner must be tagged, the throw should be about knee high in order that the ball may be placed on him more quickly. With a runner on third who the team cannot afford to have score, and with one out, the infield should play in close; on most other occasions it should not, for the batter has a much better chance to get to first with the infield in close.

Catching fly balls: On line drives the player reaches out and catches them immediately or he does not get them. He should use both hands if he can in making the catch. Practice in catching line drives should not be neglected. In catching other fly balls, the infielder should run immediately to the spot where he believes that ball will come down. Then if necessary he can shift later and still catch the ball. Some designated member of the infield should call out the name of the man who is to make the catch in cases where two men might run into each other while attempting to catch fly balls. This will prevent injury that might otherwise result. Where either the infielder or outfielder can catch the ball, the outfielder should take it, for he is coming in to meet it and consequently has a better chance to catch it. Besides that, he is in a much better position to throw it after he catches it. Infielders should catch high flies that come down in the pitcher's territory unless the pitcher is particularly good at catching them.

Playing the base: Whenever it is a force-out, the baseman should play the side of the base closest to the thrower.

After catching the ball with his foot on the base, he should step out of the way of the runner. If the runner must be tagged, the baseman should hold the ball in both hands on the side of the base from which the runner is approaching. He should watch the ball until he catches it and then he should watch the base runner. When a base runner is caught between bases by some player guarding neither base, the man with the ball should run directly out toward the base runner. Then, as the runner commits himself, the ball is thrown to the base for which he starts. In the rundown the base runner should be driven back toward the base from which he came and the put-out made near that base. The man with the ball in the run down should fake throws while closing in on the runner. He should be sure to get the ball to his teammate in time for the put-out. Three men, or four for beginners, are plenty for the run down. It is not advisable to try to use as many of the team as can gather around. If some runner farther along tries to advance, the play should be made on him at such a time as he can be caught off base.

Outfielders

Outfielders need not be big men; speed in running is much more important than is height or weight. They must be alert, and know what to do next just the same as other ball players. It is customary on amateur teams to place good hitters who are rather awkward at handling balls in the outfield, especially in the right field, for fewer balls are hit there. However, good outfielders must be able to catch fly balls, to throw, to field ground balls, and to back up other players.

Catching fly balls: This is the most important defensive skill for an outfielder to possess. He must catch high fly balls and line drives. The line drive is more difficult to judge, and in many cases is given less attention during practice. This should not be, for fielders learn to catch line drives only through practicing that skill. In fielding either line drives or low hit balls that fall short or require a diving catch for a put-out, it is best in most situations to stay back and catch the ball on the first bounce instead. If a fielder does dive for such a ball and misses it, he takes an additional chance of getting hurt, and the ball, if missed, will roll a long way, allowing the batter and any

men on base to advance several bases or to score. There are situations, of course, where the fielder must take chances. With two out in the last half of the ninth inning, a man on third base, and the score tied, he must try to make the catch. The ball game is lost if he does not, and may be won if he does.

When a fly ball is hit to his field the fielder should run immediately, using normal arm action rather than running with the arms stretched out toward the ball, to the spot where he believes the ball will light. Then he can change his position if necessary, if he has time, as the ball arrives, and reach out and catch it. If the ball is hit over his head, he should turn his back toward home plate and run to where the ball is hit. If he has time he should then turn facing home and make the catch; if he does not have time, he will need to catch the ball over his shoulder while running away from it. Most fielders can cover more territory coming in to meet the ball than running back to make a catch. Consequently they should play their positions accordingly. In case of doubt concerning who should attempt the catch, one fielder should call for it and the other should let him have it. This is a surer way to make the catch and to avoid injury by running together. Each batter should be studied and the pitch to be made should be known in order that the fielder may know where to expect the ball to be hit. He can shift accordingly and be in a better position to make the catch. Sometimes he will figure it wrong, but it is good practice to play percentages anyway.

Throwing: Outfielders should have strong throwing arms, for they must throw comparatively long distances. Ability to throw farther can be improved somewhat with practice and can be maintained through proper warm-up and care of the throwing arm. One important phase of throwing from the outfield can be much improved with practice; it is the ability to get the throw off quickly. This depends upon eliminating unnecessary windup or waste motion, and on catching the ball with the body in the correct throwing position. If the ball cannot be caught with the body in the correct throwing position, the player should shift immediately to the proper throwing position. In general, when a long throw is required, the throw should be low and the ball should

land about 30 feet from the plate so that it gets there on the first hop. It takes less time this way than if thrown high enough to arrive on the fly, and there is less danger of an overthrow. As a general practice the throw should be to the base ahead of the runner. On long hit balls another outfielder may move into line or the second baseman or the shortstop will come out to relay the throw, which should be made to him at once. The ball should not be held in the outfield.

Fielding ground balls: Outfielders do not have to field many ground balls, but those they do have to field are extremely important. They are often difficult to field, because the surface in the outfield is rather uneven on most diamonds where amateur ball is played. Add to this the fact that the inexperienced player is probably in the outfield in the first place because he has trouble fielding ground balls, and it is to be expected that the percentage of errors on ground balls in the outfield will be high. The fielder should watch the ball until he has it in his hands and then throw it. Hurrying and taking the eye off the ball are main causes for fumbling or missing the ball. The ball should not get by the outfielder. If the ground is particularly rough, he may well try to get his body in front of the ball and then pick it up. While the ball is rolling out to the outfield, the fielder should rush in to meet it, rather than wait for it. As he approaches it, he should slow down and get his body well under control in order that he may be sure to prevent the ball from getting past him. On some plays he must hurry all that he can and thus take chances of letting the ball get by him, but in most cases he should use the procedure described above.

Backing up other players: In the situation just discussed, where one fielder is playing a ground ball, or other balls for that matter, any other fielder who can get into a position to do it should back him up. If the first man misses the ball the second fielder can then recover it. The same is true for balls hit to infielders. The outfielder should not wait until the infielder misses the ball before he moves into position to field it. He should be in position in case the ball is missed. Outfielders should also back up infielders on throws. The centerfielder is responsible for throws from the catcher to second base, or from any other player with

whom he can get in line. Likewise the right and left fielders should back up basemen on all throws in their general direction. The right fielder backs up first and second on throws from the regions of the catcher and third baseman, respectively. The left fielder backs up throws to third base from the regions of the catcher or first base, and second base on throws from the regions of the right fielder or first base. One excellent measure of the defensive alertness on any ball team is the way the players back each other up.

General Defensive Suggestions

The player should:

1. Study every batter to know where he is likely to hit the ball.
2. Back up throws whenever correct play of his position permits it.
3. Know the score and how many are out, and play the game accordingly.
4. Figure out ahead of time what he should do if the ball comes to him.
5. Encourage other team members, especially the pitcher.
6. Practice those phases of play on which he is weak.
7. Do enough running in practice to keep in excellent condition, especially if he is a pitcher.
8. With less than two out, put out the man nearest to home if possible.
9. In the late innings, play to keep the winning run off the bases.
10. Always warm up gradually before throwing hard.
11. Catch the ball first, then throw it.
12. Use two hands while learning; after he has learned, he will continue to do so.
13. Tell others what to do on high fly balls.

14. Avoid throwing the ball around unnecessarily with a man on base.
15. Hustle all the time he is on the field, and do his resting on the bench.

SOFTBALL

This modified game of baseball is comparatively new and very popular as an outdoor sport. A similar game, indoor baseball, preceded it. It is played extensively as an intramural and activity class game in schools, and as a leisure time game on playgrounds all over the country. There are many city, industrial, and county leagues in operation and even state and national tournaments which include outstanding performers in this sport. Since the playing field requires less space than baseball, the equipment costs less, the game is shorter, and the players need much less skill to really enjoy the game, it is used widely for recreational purposes as a substitute for baseball.

This game is similar to baseball in many respects, but different in some important phases. The various aspects of play discussed under baseball will be considered in turn, and differences in execution of the important skills in the two games will be pointed out.

Offensive Play

Batting: The ball is larger, the bat is smaller, and the base lengths are shorter. The pitcher is closer, as are the infielders and outfielders. Some of these differences make it desirable for the batter to modify his batting form as recommended under the discussion of baseball. The chief factor making modification desirable is the shorter pitching distance. Even though the pitcher must throw underhanded, the batter has less time to watch the ball and less distance over which to judge its flight. This means that he must make his decision to swing at it or let it go by in less time. He must also swing more quickly. The lighter bat helps somewhat in this respect. However, most batters will need to take a shorter swing at the ball. Some will need to take a shorter grip on the bat. The other batting suggestions made concerning baseball apply equally well here.

Base running: It is not permitted to take a lead in this game until the ball has left the pitcher's hand. It is possible to start for the next base after the ball has left the pitcher's hand. The game is usually played without spiked shoes, but the base lines are shorter. The rest of the general principles of base running apply here as in baseball.

Defensive Play

The catcher: The catcher needs a mask and a glove, but has less need for shin guards and a chest protector than the catcher in baseball. The principles covering play of this position in baseball apply equally well here.

The pitcher: There is greater modification in the play of this position than in that of any other. The pitcher here does not need to worry about holding men on base, for the rules do not allow runners to take a lead while the pitcher is in the box with the ball. The pitcher must throw underhand, which is almost a new skill for many regular baseball pitchers. It requires much practice to learn this unnatural method of throwing well enough to use it satisfactorily. When it is mastered, as it is by some players, the batter has great trouble hitting the ball. It can truly be said then that a foul ball represents a moral victory for a weak batter against an expert softball pitcher.

Some excellent pitchers use a windmill motion, one in which the arm is swung around in a complete circle parallel with the long axis of the body, and the ball is released at the time that the hand is moving forward at the bottom of the swing. Other equally good pitchers do not use this circular motion, but instead swing the arm backward and then forward. Successful pitchers use deliveries with the back of the hand, the palm of the hand, or the thumb side of the hand toward the batter at the time the ball is released. Here, as in baseball, control, speed, change of pace, and curve help the pitcher win ball games. The curve is thrown by snapping the wrist and rolling the ball off the thumb side of the first finger at the moment of release, if the palm is forward. If the back of the hand is leading, the ball is rolled off the other side of the hand as the wrist is snapped.

The infielders: Principles of play are similar here to those in baseball, with a few exceptions. The bases are

shorter and because of that the infielder has less time to make a play, especially at first base. Men on bases can get less lead than in baseball. Consequently they will not reach their next base by as large a margin over the man running to first as will players in regular baseball. This provides proportionately more chance to put out the runners farther advanced. Special attention should be given to spinning fly balls in the infield, for they are liable to jump out of the player's hands if they are not gripped firmly when caught. On ground balls, infielders especially but the pitcher and catcher as well should remember that the larger ball is more likely to roll out of bounds than a baseball if it is spinning properly, and should take advantage of that fact by letting the ball roll foul if it will when the batter is well on his way toward first.

The outfielders: These are three in number just as in baseball. They should employ the same principles as in baseball.

Chapter VII

TRACK AND FIELD

Track and field differ from the other major school sports in that there are a dozen separate activities included. They differ further in that track and field competition is primarily individual, while the others are team sports. Of course, team spirit enters into track and field activities. A man needs team sense, and the team needs balance. But the competitor is on his own when the event starts.

Track includes all the running events, 100-yard dash, 220-yard dash, 440 or quarter-mile, 880 or half-mile, the mile run, and the two-mile run. High school distances may be shortened. Dashes indoors are frequently shortened because of limited straightaway. The borderline hurdle races, 120-yard high hurdles and 220-yard low hurdles (200 in high school), are included under track, as are all relays. Field includes the weight throwing events (shot, discus, javelin) and the jumps (high jump, broad jump, and pole vault). The hammer throw is included in the Olympics.

The popularity of track and field goes back to certain natural urges toward activity such as running, throwing, and leaping. These instincts or urges may be explained as follows: Among our more ancient ancestors, when life was simple, raw, and seldom mild, the ones who lived long enough to be ancestors were the ones who were best at running when a wild animal or some bigger wild man was chasing them. The man who was best at throwing a stone, jumping a ditch, or casting a spear was generally the fortunate man who had meat when others starved or who lived through the battle to tell the tale to Junior. The one who leaped best cleared the ravine that others fell into, or grasped the overhanging limb just before the tiger got there. There are similar survival instincts such as striking with a club, climbing trees, and the like. The survival of the fittest over many generations left natural tendencies in the human race for running, throwing, leaping, and many other activities. We

take to competition, which gives us a chance to use these activities, as ducks take to water.

Historically, track and field were the earliest established of our modern sports. The ancient Greek Olympic games had many events nearly the same as a modern track meet. These games were popular and widely held. The games at Mt. Olympus were the climax of competition and so important in the life of the people that calendars were set according to Olympic periods. The winners were greatly honored. All competition was on a purely amateur basis. Later there was professionalism, but this marked the decline of the games. The marathon run (of about twenty-six miles) originated with the runner who carried news to Athens of the valiant Greek stand against the Persian horde at Marathon. Foot races have been popular in every generation, and, of course, still are. The great modern programs have various competitions through dual, triangular, conference meets, and sectional relays. In peaceful times the climax of this competition has been the Olympic games, revival of the Olympian games of ancient Greece, held every four years and rotated from one country to another. The 1948 games at London have been one of the biggest events ever held. Competition is not restricted to track and field but most interest centers here. It is to be hoped that such games may continue among men of good will with an urge to fair victory.

No other single sport offers so wide an opportunity to the individual athlete to use his special talents. Natural speed is the answer to success in some events; stamina counts for more in some; strength and explosive force are at a premium in others; jumping ability pays dividends in still others; while coordination, effort, and competitive instinct are desirable in all. Success or failure is squarely up to the competitor. The stop watch or tape measure do the judging. The athlete can hardly blame the coach for failure to get a chance, as he might in certain other team sports.

The selection of events is of the greatest importance. The beginner should experiment a little, and also keep in mind his natural gifts. The requirements of each event will be covered separately later. One common mistake is to shy away from events requiring more punishing training

in favor of sprint, weight, and jump events. Many second-rate sprinters would do much better at 440 yards or the half-mile if they practiced at these events. Having made his best selection, one should specialize his training if he expects to be a winner. Most track men continue with more events than they can ever hope to master.

Combinations of events should be considered in relation to their place on the program and the degree to which one event tires the competitor for another. Three events are about the effective limit if competition is keen. More boys try too many than try too few. One first place scores 5 points. Three third places score only 3. One should learn the one event well and excel in it. Then if there is the energy, time, and skill, consider combinations of events to go with it. Some popular combinations are 440 and mile relay, 100-yard dash and broad jump, shot and discus, 100, 220, and broad jump. Events like the broad jump, shot-put, or javelin interfere less than most others, since one can get a mark with one try, which is not very tiring. On the other hand, the two-mile runner will need a lot of stamina to add this to a one-mile run. Such a combination is seldom to be recommended. In large meets it is well to cut down on combinations since the trial heats of such events as the 220-yard low hurdles do much toward tiring the competitor, and the stiffer competition will not let any poor marks stand up for points.

TRAINING

Track is in the class of sports where competition is largely individual. A man cannot coast while he rests and depend on the other team members to carry him. This means that he must get into condition and must do serious training for almost all events. Training will show results in any event—a jumper may get by, while a distance runner cannot, if he scamps his training. But conscientious preparation pays in both. It is well to consider conditioning as pretty much of a year-around proposition. This training need not be as intense as may be required during the season, but fair condition should be maintained all the time. This may be done through other sports. If one is out of condition,

not less than six weeks are needed to get ready for competition, and even more time is often necessary.

Daily practice schedules for a particular event should aim to develop both stamina and speed. For example, in training for the 440-yard run, one should run 660 one day at slightly slower speed. Then take three-fourths of the distance or up to 400 yards at high speed the next day. It is best to work gradually into all speeds, so that there is a gradual build-up of heart muscle, legs, breathing muscles, and lungs. A well-planned program of practice will avoid possible heart injury and much of sideache, shin splints, leg cramps, and similar ills. The value of conscientious training, as shown by the effect on marks, cannot be emphasized too much. Good health is the necessary basis for it. Before starting vigorous training one should have a complete medical checkup, with special reference to heart and kidney condition.

After a period of training, the athlete may lose interest in what he is doing. Training becomes distasteful work. The athlete gets stale. If his health is good, this condition is far more mental than physical. It is seldom a matter of physical exhaustion, as so many think. A short lay-off may cure the trouble. Playing around with other events and leaving one's own alone may do just as well. Two or three days' rest should be enough to bring the athlete back to form.

Finally the training for track and field should be considered in relation to building physical fitness for life in general. There is much to recommend this sport. The decathlon man, training for ten varied events, receives excellent all-around building up. Running is the very best breathing exercise. A strong heart, strong abdominal muscles, and strong legs are developed in this way. The value of roadwork is recognized by the boxer or wrestler seeking to build up stamina. Straight running events are weak at one point. From the standpoint of all-round development, they fail to build strong backs, shoulders, and arms. Perhaps the best all-around event would be the pole vault. The hammer, an event not in general use because of danger to spectators, is excellent for general muscle building. The danger of injury in track is less than in many body contact

sports. Fractured bones, injured knees, and dislocations are rare. If the heart is protected by preliminary medical examination, there is little danger of any lasting injury. This sport is recommended further because its benefits reach a large group who would not be in sports competition otherwise.

THE VARIOUS EVENTS

There are six general groups of events in track and field. The sprints include the 100-yard dash and the 220-yard dash. Shorter races are often run indoors. Middle distances are the 440-yard or quarter-mile, the 880 or half-mile. Distance runs include the mile and two-mile run. The fall sport of cross-country comes under this head as well. The hurdle races, 120 high hurdles and 220 low hurdles, (200 yards in high school) are a first cousin to the sprints. The jump events include the high jump, the broad jump, and the pole vault. The weight-throwing events include the shot put, the discus throw, the javelin, and the hammer throw. The last two events have been restricted because of the danger to spectators in these throws.

In addition to these single events, there are the various four-man relay races. The mile relay, each man running 440 yards, is the classic race.

The 100-Yard Dash

Natural speed is the paramount requirement for this or any short sprint. Men with varying body types succeed in this event. The very slender, frail boy is not often a good sprinter. Small men are carelessly credited with more speed than they possess, and tall men with less. There is a tendency to look at the number of steps rather than the amount of ground covered. Jeffrey, Meier, Simpson, Drew, Kelly, Duffy, Paddock, Wykoff, Metcalfe, Owens, and Davis were some outstanding performers. The best record is 9.4 by Americans Frank Wykoff, Jesse Owens, and Mel Patton. A high school mark that should win points is 10.9. A mark of 10.2 should score in state meets.

A good start is most important in a short race. Hands should be as close to the starting line as possible, the fingers and thumb forming an arch parallel to the starting line. Feet are spread sideward only 4 or 5 inches. The rear foot is

behind the other from 6 inches up to the length of the lower leg. The rear hole slants nearly straight down, the front only about 45 degrees. Starting blocks will use similar angles. One should come up to a set position at "get set," then try to go fast on the start but not beat the gun. He should drive forward sharply with the rear foot and opposite hand, as though striking a blow with this hand, and keep the first step short, raising the body up gradually in several strides.

In the body of a race so short, a man should go full tilt all the way. He should breathe only once or twice in the hundred yards. He should eye the tape and go for it with all he has. There will be no particular advantage in turning shoulders, jumping, or other unorthodox finish. He should drive the chest at the tape and continue in his own lane after the finish to avoid spiking and to enable the judges to identify the runners easily.

Training for the event should include preparation for the combination to be run the day of the meet. The 220-yard dash and broad jump are the most popular combinations, along with the sprint relay if it is run. One must be sure to warm up thoroughly. Sprinters are the most likely team members to pull muscles. They should take at least twenty minutes' warm-up before racing or practicing starts and get some practice at starting with the gun. Practice once a week with the stop watch is enough. Most of the work should be on form and condition. Two or three sprints are plenty for one day. The sprinter spends much time on conditioning and improving form. He should know the rules of the event. In drawing, he should try to avoid the outside lane of a track, which may be soft. During competition, he should do his heavy work early in the week. Very light practices are advisable the two days before a meet.

The 220-Yard Dash

This race is very similar to the 100-yard dash and is often run by the same men. It makes more demand on stamina and training. There is a slight let-down or float during the middle of the race. In large meets requiring heats, it is much more tiring than the 100-yard dash. The training, if both are to be run, requires a good deal of conditioning.

In a high school meet 23.8 seconds should score points. In state meets 22.5 seconds should stand well. The world's record is 20.3, made by American Jesse Owens. Mel Patton, 1948 Olympic 200 meter winner, has good marks. In small meets where each race is run but once, the 100 serves as warm-up for the 220. There is plenty of time for rest, and the 100 should not hinder performance at all in the 220.

The 440-Yard Dash

The quarter-mile is one of the toughest races in track. A combination of speed and stamina is required. Conscientious training is necessary. Frequently the runner who is not quite fast enough for consistent winning in the 100 or 220 can be a success in the 440. This is the sprint type of quarter-miler. The other is the distance type who comes down from the half-mile. Maxey Long, Ben Eastman, Klemmer, and McKenley have been outstanding performers. The world's record is 46 seconds by Jamaican Herb McKenley. In ordinary high school competition 56 seconds should win. In a state meet 52 seconds should place. A good college mark is 50 or less.

Preliminary training should gradually build up to full distance over a period of six weeks. Weekly practice should use alternate nights for speed, 360 yards, and distance, 600 yards. Two such runs after a thorough warm-up are adequate. There should be practice in starting both with and without a gun.

The almost universal combination for the quarter-miler is the mile relay. It is a quarter-mile race, and there is a long rest in between. Only infrequently is it desirable to try to add the half-mile or 220 to these two races. The quarter requires some judgment of pace. If a man starts out too fast, he may not be able to finish. He should know how fast he runs the first 220, but should not get farther than five yards behind a real competitor, nor should he be fooled by a "killer" who tries to wear him out so that someone else can win. The sprinter will want to drive on the start and try for a good position before the first curve. If he fails to get it, he will drop back on the curb and try to pass on the back stretch with a burst of speed. This gives the opponent less chance to challenge, and is also good psychol-

ogy, as it makes a man look better than he is. One should not try to pass on curves—he might meet a truck, and he has to run too far to get around a man here. The sprinter tries to get out in front, and may then slow down the race. If he is not against another sprinter he can win with a burst of speed at the finish. The distance runner must get far enough ahead so that the superior finish of a sprinter will not catch him. There is ordinarily, with most runners, a sprint for position at the start and up to the first curve, followed by a slight, very slight, lessening of pace and “loosening up.” Then the finish is a gathering of resources and a drive for the tape with all possible speed. If tired, one should be sure to finish in form. He should not shorten the stride, throw the head back, and tie up his muscles. The quarter mile takes plenty of courage and determination in this part of the race. This is also the place where training tells. A lot of boys look good the first two-thirds of the race. The ones who look good the last third are the real quarter-milers.

The Half-Mile

The 880-yard run continues in the tough race class. Some speed is required, but there is more emphasis on stamina. The length of stride and general form are important in this event. Many of the good performers have been tall men; their height gives an advantage in stride. It is a gruelling race, requiring good health and the best of condition. Notable performers include J. E. Meredith, C. H. Kilpatrick, Burrowes, and Wooderson.

The world's record is 1:49.2 by Wooderson of England. A usual winning high school mark is 2:17. In an average state meet 2:4 should place well. The 1948 Olympic 800-meter winner was Mal Whitfield, U. S. A.

Knowledge of pace is essential in the 880. A man will more nearly run his own speed in this event than in shorter races. Position counts far less than in shorter races, but is still important. Consequently, it is essential to practice starting. One should not sprint too far for position, generally not more than 40 yards. Position is of greater importance in indoor races on smaller tracks. The hand and body

carriage is more relaxed than in shorter races. A half-miler must know how to spend his resources so as to be able to finish. He should be able to judge his speed in each fourth of the race, and use care not to run the third quarter too slowly. There should not be a great variation in time of each 220. The first and last 220 are usually slightly faster than the second and third. The value of condition cannot be overemphasized if a man wants to win in this race.

The Mile Run

This event became popular recently because of the development of an outstanding group of performers including Americans Cunningham, Venzke, Fenske, and Dodds, the Britons Lovelock and Wooderson, and the Swedes Andersen and Haag. Paavo Nurmi of Finland was just before this group. All of these men have run the mile in just a few seconds over four minutes, indicating some prospect of an eventual four-minute mile. The world record is held by Swedish Gunder Haag at 4:01.4. A pretty fair high school mark is 4:55. In a state meet, 4:35 should stand well.

This is a stamina and form event. Body types should not be heavy. Some speed is desirable, but a sprinter's speed is not essential. Form is of great importance because a slight fault repeated at each stride will add up to about 900 mistakes. Condition and natural stamina are of the greatest importance. There is some improvement here with a few years additional age, so that the best marks are usually at 25 years of age or past, after men have finished college. This event is severe for high school athletes, and a careful preliminary medical checkup must be made. This applies to all events, but to the longer races in greater degree. The freshman or sophomore of average age in high school should avoid driving on the mile because of danger of overstrain. In fact, he will do as well to leave this event alone until his junior year.

A knowledge of pace is one of the essentials of success. The runner should be able to tell how fast he has run each quarter. The first quarter is usually the fastest, five or more seconds less than the average of the other three, which are nearly alike. The finishing sprint should cut two or three seconds from the last quarter. Quite often in high

school running the finishing sprint is a finished fade-out, making this the slowest quarter. The third quarter often goes very slowly, as the runner begins to tire. One should keep up his fight in the third quarter and hold to his form in the last quarter.

The more sprinting ability a man has, the more chance he can take in staying back. This ability is only relative, of course. One has to know what the opponent can do. Generally it is not safe to fall more than 10 or 12 yards behind a real competitor (not a "killer ") in this race. There will be some let-down or float during the body of the race between the starting burst and sprint at the finish. The start is not of so much importance as in shorter races. The initial sprint is short since it is not good strategy to spend much energy on position in so long a race. Position is of greater value for a large field of competition on a small indoor track. There may be such a jam of runners or so many curves and so little straightaway that the man who gets behind the pack will have a hard time getting around.

Two-Mile and Cross-Country Runs

These events have no place in the high school on a competitive basis. As a means of conditioning, they may be very good. Joey Ray and Gregg Rice, Americans, Maki of Finland, and Haag of Sweden have been outstanding performers. The Finns and Swedes as a group have been better distance runners than Americans or people of any other nationality. The world's record, 8:42.8, is held by Gunder Haag of Sweden. Men past 25 years of age have usually been the best performers. Stamina and training are of the greatest importance. Speed is not so essential. The start here is less important than in any other race. Judgment of pace is of great importance. There is no great variation, but the fifth, sixth, and seventh quarter miles are usually slowest. Some good performers run with a watch in hand. One should run his own race more than in any other event. It is not safe to get more than 25 yards behind a real competitor. The body is held loosely. The stride is not long. The runner comes down flat-footed at each stride. Sponges are desirable in the heels of shoes. Short spikes are all that is needed.

Courage and steadiness are the prime mental assets of a two miler. He should keep his chin up, especially during the sixth and seventh quarter miles.

The 120-Yard High Hurdles

The high hurdles are essentially a form event. The tall man has the advantage, for he can take the hurdles more easily in the regular three strides. Looseness of hips enables a man to get down on the hurdle in better form. There is a premium on speed. Muscular coordination and a sense of rhythm are needed throughout. Natural springiness or jumping ability makes the event easier, but care must be used to hurdle the barriers, not to jump over them. One should practice for stamina and long, rhythmical stride. Many high school hurdlers tire during the race, shorten stride, and hit some of the last three hurdles. This throws a man off balance and causes loss of speed. There are occasional falls and cinder burns which come from tripping on a hurdle. One should be sure the hurdle is set so that it locks and will fall down if hit. If it breaks or tilts, the foot may be caught and cause a bad spill.

Probably no event is so poorly mastered in high school; consequently, many marks are poor in small meets. The world's record, 13.6, is held by Harrison Dillard, of the United States. Wolcott, Towns, Thompson, and Simpson are other outstanding performers. No such marks are necessary in high school dual meets. Here, 18.5 seconds will often place well, and 16.2 should score points in a state meet.

This event may combine fairly well with a number of other events such as the low hurdles, high jump, broad jump, or javelin. It is not a severe event so far as tiring the contestant is concerned.

The hurdler needs to take constant loosening and stretching exercises for the hip and leg muscles. There should be considerable practice over one or two hurdles for form. Rhythm and smoothness must be cultivated. Arms work in rhythm with the opposite leg. He should stay down close to the hurdle and cut down sharply rather than sail over the hurdle. This "buck" is essential in high hurdles. The body bends forward in clearing the hurdle, and legs bend side-

ward with right angles at knee and ankle. He should hit the ground smoothly and easily, ready for a running stride. The ten yards between hurdles must be covered in three strides, over the hurdle on the fourth. Being a little short on distance at each barrier will cause him to hit hurdles in the last part of the race. One should work on hip roll or any method that helps to lengthen stride. There may be some variation approaching the first hurdle, depending on the type of start. Eight strides are usually used to cover this 15 yards. The 15 yards at the finish is to be covered in the fastest possible way. Training for stamina is needed to prevent shortening up on the last barriers and consequent hitting of hurdles. It is well to take the full flight of hurdles in practice occasionally at top speed to avoid this difficulty. The event is made easier for high school by reducing the height of hurdle from 42 to 39 inches.

The 220-Yard Low Hurdle

The low hurdles place a great deal of emphasis on speed. A passable form is more readily acquired than in the high hurdles. Good form is, however, important. The height of only 2 feet 6 inches enables the hurdler to use much more of a running stride. There is little of the buck so essential in high hurdles. Height is an advantage, though less essential than in the high hurdles. More stamina is required. This is a 220-yard dash with ten obstacles to clear. Rhythm is important. One must measure his strides so as to be ready for the hurdle when it comes up. More spring and less spread describe the main differences from the high hurdle races. World marks have been under 23 seconds flat. The record is 22.5 by Fred Wolcott of the United States. Brookins, Rockaway, and Owens have been outstanding performers. A respectable high school time for the shorter high school distance of 200 yards is 27 seconds. In a state meet, 23.5 should place well.

It is twenty yards to the first hurdle and twenty yards between. Ten steps will usually cover the distance to the first hurdle, and seven strides will do between hurdles. If the beginner is young and small, he may start with nine between. Shortened distance of low hurdle spacing in high school ordinarily compensates for this, since hurdles are

18 yards apart instead of the collegiate distance of 20 yards. The hurdler should not attempt to make the distance in eight and then go over with alternate feet forward. It is easier to make the distance between in seven steps in 200-yard hurdles. Roughly two-thirds of the stride over the hurdle is in front of the hurdle, one-third behind it. This stride is about 12 feet.

Training involves considerable actual hurdling, which must be done at full speed. Then there must be sprint work and training for stamina. Practice for stamina can be at 340 yards. This distance in a flat race is comparable to 220-yard low hurdles. In the latter part of the race, the last three or four hurdles, a man drives hard to avoid the natural tendency to shorten stride because of fatigue. A short stride will throw one off in clearing hurdles. He should gather and drive hard on the finish.

Most frequent combinations of events are with the sprints, high hurdles, and broad jump. In large meets the tiring effect of preliminary heats must be considered. So far as the program is concerned, either the 100-yard dash or the high hurdles fit in well for combinations with the 220-yard low hurdles.

The High Jump

This event places a premium upon natural jumping ability and form. The heavy man is at a disadvantage. Height is an asset. There has been a great improvement in general performance in the high jump in recent years. The first A. A. U. national title was won with a jump of only 5 feet 5 inches. Six feet is no longer a remarkable jump. The accepted world mark is 6 feet 11 inches by American Lester Steers. Horine and Osborne have been other outstanding jumpers. The old A. A. U. mark of 5 feet 5 inches is now only a fair high school mark. Six feet or better will usually be needed to win a state meet.

There are various styles of jumping. Any good jump emphasizes the layout, or having the body parallel to the ground and close to the bar when clearing it. For this reason the old scissors jump is not recommended because of the difficulty in getting the body down close to the bar. In this

jump the take-off is made from one foot, the outside foot, and the landing on the other. The legs are "scissored" across the bar alternately from a more or less sitting position across the bar. The approach is at an angle from the side.

The Western jump takes off and lands on the same foot with the body turning face toward the bar and getting a lay-out parallel to the bar. The approach is from the side at an angle of about 40 degrees, the take-off from the inside foot. It is the most popular basic style.

The Sweeney or eastern style of jump differs considerably from the western in that the approach is made at right angles to the bar instead of from the side. The body turns face toward the bar and the landing is made facing the approach. This jump and variations of it are basically sound but perhaps a little more difficult to learn than the western form. Both are superior to the more easily learned scissors.

The training for the high jump is lighter than for most events. During competition the competitor does not want to do practice jumping more than twice a week and in the first half of the week. General conditioning, especially preliminary conditioning, is important. Training should include a little sprinting and some work on other events. Possible combinations are the high hurdles, pole vault, javelin, or broad jump. More than in most events, there is a tendency to specialize and not try any combinations.

The Broad Jump

The running broad jump has been a popular competitive event since ancient times. Jumpers formerly carried hand weights which were thrown backward during flight, thus giving additional impetus to the body. This event requires speed plus jumping ability. The greater the speed, the farther one travels at any given height before gravity pulls him back to the ground, and the higher one gets off the ground at any given speed, the farther he goes forward before gravity gets in its work. Good jumpers get a surprising height on their jumps. One should work for height as well as speed on the take-off.

Jumps are measured from the front edge of the takeoff board. Stepping over is a foul and causes stone bruise by hitting the take-off board with the heel. Stepping behind causes loss of the distance from there to front of the board. Besides that, the dirt of the runway does not give as good a rebound for the take-off. In view of this, there must be enough work on gauging stride so that the runner can come through at full speed and hit the take-off just right for a maximum effort. Failure to do this is the most common fault of beginners. For proper timing he measures back several strides to a starting point that will mark the spot where the jumping foot should hit if it is to hit the take-off properly. One should bear in mind that the last stride should be shortened. Jumpers regularly use two such check marks, perhaps the sixth and twelfth strides back or eight and twelfth strides back. Most good jumpers take a run of over 100 feet. A man should practice at it until he can hit the board nine times out of ten; check marks should be adjusted up or back according to whether he is short of the board or fouling in front of it.

Measures are taken from the point farthest back where dirt is broken. In finishing a jump he reaches forward with both feet together as far as he can and still roll forward over the feet. If he falls back and touches with a hand, or sits down, the measure will be made from that point.

The good marks in this event have passed twenty-five feet. The world's record is 26 feet 8 1/4 inches by Jesse Owens, U. S. A. Other good performers have been Le Gendre, Gordon, and Steele. Steele of the U. S. A. won the 1948 Olympics. A respectable high school mark is 18 feet 10 inches. Twenty-one feet should place well in a state meet.

Training requires considerable general conditioning to prevent tiring in competition, as well as jumping practice and work on check marks. Care must be taken to protect the heels from stone bruises; rubber pads help. Combinations include high jump, high hurdles, and 100-yard dash. No one of these will interfere too much with performance in the broad jump.

The Pole Vault

This event requires more skill than most track and field events, as well as some speed and strength. It is an excellent event for building up the body. Strong arms and shoulders are especially needed. The form is generally not well mastered; consequently, there is a wide range of marks. The holder of the world's record, Cornelius Warmerdam, has several times exceeded 15 feet. The record is 15:7 3/4. However, a jump of 9 feet 6 inches will often win points in a high school meet. About 12 feet will be needed to win the ordinary state meet. Hoff of Sweden, and Meadows, Sefton and Smith of the United States have been other outstanding performers. Guinn Smith was the 1948 Olympic winner.

The essentials of executing the pole vault are these. A long light pole of bamboo or aluminum is used. The vaulter runs at the pit with the pole carried at his side, plants the end of the pole in a small box sunk in the ground for that purpose, slides the lower hand up to the upper hand, swings up and around the pole to face backward, arches the feet and body up and over the cross bar, and just as the pole comes nearly straight up, pushes off from it with both hands and arches the back and throws hands up so that the shoulders, arms, and head clear the cross bar while the pole falls backward from the cross bar. Most vaulters continue their turn so that they light in the pit facing forward, the same direction as they faced on the runway.

Since the box to receive the point of the pole is fixed, the vaulter must fit his steps to its location. A run of 90 feet is desirable. Two check marks should be used, the first six or eight strides back of the take-off, the second four or six strides back of the first. If one is getting too close to the take-off, the marks should be moved back, if too far they should be moved up. Wind or a soggy runway will require adjustment of marks.

Up to about 11 feet 6 inches the height of the grip on the pole may be measured by setting the pole up against the cross bar and placing the upper hand at this point; the other hand grips the pole a comfortable distance down. One should keep both thumbs uppermost in grip on the pole, carry the

pole rather loosely, bring the point down at the last of the run, and slide the lower hand up to the upper for the take-off, swing one foot up, and spring off the other. He should not slacken speed. As a man swings up, he comes around the pole and arches away from it. Here is where strong arms and shoulders are needed. In case one has trouble hitting the cross bar as he comes up, he should move the standards closer to the pit. He should snap away from the pole sharply as he goes over the bar. It is best to keep the bar down low when learning. Someone should catch the pole as it falls back.

Training requires a good deal of preliminary building up. Gymnastics and apparatus work are good for pre-season. One should keep the bar low and work for form, pay attention to check marks, and remember this is one of the most difficult events to master. Most high school vaulters never achieve good form. The ones who do make winning marks in competition with comparative ease.

The Shot Put

This popular event is one of the oldest on the program of field events. Recent years have seen a considerable improvement in the level of performance. The 16 pound shot is the standard in college. Marks made with the 12 pound ball in high school must take this difference into account. The world's record is 58 feet 1/4 inch by Charles Fonville of the United States. Other outstanding performers are Torrance Blozis, and Dees. High school marks with the 12 pound shot are fair at 40 feet. In state meets 50 feet should stand well.

The qualities required for success in this event are power, coordination, and explosive force. The last is equivalent to speed in the put. Sprinters often do surprisingly well in the shot-put for men of their weight. The big man has the advantage of extra power, and good performers are usually good-sized men with strongly developed arms and upper bodies. Coordination or form is essential to outstanding performance. There must be synchronized use of legs, back, arms, shoulder, and even finger muscles for best performance. The strong, awkward boy cannot expect to make good marks until he has mastered the event.

The shot is put from a 7 foot circle which has a toe-board 4 inches in height across the front. One should come across the circle fast and reverse on the put so as not to get out of the circle. One may hit the side of the toe-board but may not step on top of it. The shot is held close to the neck with the elbow well out. It must be pushed or "put," not thrown. A man faces at right angles to the direction of the put and the path across the circle, and as far back as possible. He stands on the rear foot, and swings the front foot until in balance. Then he must glide rapidly sideward one step, crouch and gather all forces without stopping, and put the whole body behind the put. As one puts, he does a reverse step so that his rear foot comes up against the toe-board and his front or left foot, in case of a right-hand put, is farthest from the toe board. He now faces forward or somewhat in the opposite direction from his start. As he delivers the shot, he fights to stay inside the circle. A man may not touch ground outside the circle or on the top of the toe-board with hand, foot, or body.

Points to remember are: Practice a lot on putting with the reverse only. Come across the circle later. Glide across the circle. Do not jump up and down. Keep the put high, 10 feet or more (most men do not raise it high enough). As the season progresses place the shot farther out on the fingers. Snap of fingers and wrist helps distance. In competition, warm up thoroughly, then try for greatest distance on early throws. Remember, the best throw counts, whether first or last. Be ready, competitively, for a best effort early and before tiring. Warm up thoroughly, especially on cold days, and keep the arm warm between puts. On raw, cold days in early season practice it is best not to put for distance. Stay in the circle until the put is marked.

The shot putter needs general conditioning as well as practice with the shot. Then he needs a world of practice for form. Much of this should be done before the competitive season. Putting practice should always be done inside a circle, so that careless habits of using extra space may not cause fouling in competition.

Combinations vary with individuals. Usually the combination is with another weight event. Sometimes a sprinter is strong enough for the shot put.

The Discus Throw

This ancient Greek event has been a part of American programs since the revival of the Olympic Games in 1896. There has been recent improvement in the general level of performance. Good-sized men are the usual winners. Co-ordination is important. High school competitors generally use a smaller, lighter discus than the standard intercollegiate and A. A. U. size which weighs 4 lb. 6.4 oz. In intercollegiate competition 150 feet is exceeded several times each year. The world record holder is Fortune Gordien, United States. Other good performers are Lampert of Germany, Harris and Blozis of the United States, and Consolini of Italy. A fair high school mark is 110 feet. In state meets 140 should place well.

The discus is thrown from a circle 8 feet $2\frac{1}{2}$ inches in diameter. The discus is held with thumb and fingers spread over the top surface, with the fingers hooked over the edge enough to control the discus. It is delivered off the first finger with a forward and upward swing of the arm, so that it is given a spinning motion off the first finger (not off the little finger). The thumb must be held rigid and the wrist stiffened to get the spin going on an even keel. A wobbly throw will not carry far. If the discus tends to "pancake" and go out against the air broadside, it will not travel far. Holding the thumb down helps to correct this fault. The discus must have an even sail.

After one has learned to sail the discus from a standing position, he should work on the preliminary turn: he should start at the back of the circle either facing the direction of throw or with the left shoulder toward the direction of throw. If the first position is used, a short half turn step brings one to the second position at the end of some preliminary swings for balance. From here there is a half-turn pivot step with the right foot so that the right side now is toward the direction of throw. A man should continue the turn with another half-spin forward, bringing the left side forward preparatory to the delivery. He should be sure to keep the throwing arm back of the body in the turn so that he can get the body muscles into a real pull forward on the discus. The turn should be made with some crouch so that there can be a lift on the

delivery. The delivery should be out and up. Most throws are too low. Added height gives added distance so long as the sail of the discus is forward. One should start the turn slowly and finish fast. The turn is a glide, not a bounce, nor a jump up and down. Progress across the circle should be in a straight line from back to front, down the center.

In training there needs to be preliminary work to build up muscles for this event. One should master the throw before working on turns across the circle. The turns should be practiced inside a circle. Otherwise one may get in the habit of taking too much space, which causes fouling during competition. It is best not to throw the last two days before competition. Combinations are usually with another weight event.

The Javelin Throw

This event has been ruled out of much of the high school competition because of the danger to spectators. Adequate supervision is necessary. It is a regular intercollegiate event. Finland has furnished most of the outstanding performers. Proper form and a good throwing arm are the main essentials. A man does not need to be big to be a good performer. Generally speaking, the form of the event has been poorly mastered. The marks of the occasional good thrower are likely to be 30 or 40 feet better than those of his usual competitors. The world mark is 258 feet 2 1/2 inches held by Yrjo Nikkanen of Finland. Other good marks are by Seymour, Stiles, and Peoples of the United States. For a beginner, 140 feet is a fair mark. There are several collegiate marks around 200 feet or better annually.

The javelin is grasped at the binding in the throwing hand. The first finger and thumb usually grip toward the back of the wrap. Other fingers may be adapted to the grip in such a way as to permit a high delivery and a firm hold. During the run the javelin may be carried above the shoulder with the elbow bent loosely at the side, or tucked under the arm with the arm wrapped around it, the hand still maintaining the grip and the javelin carried back and under the arm. Any carry finishes with a drawing back or full extension of the arm backward preparatory to the throw, with the body

in a sideward position, the left side in the direction of the throw for right handed throwers.

The throw must be delivered at the end of the run without crossing the foul board but making full use of the speed of the run. The finish of the run may be made with hop and throw or with a cross-step and throw. Either brings the competitor to a position with the left side toward the direction of the throw with a delivery something like an overhand baseball pitch but with more elevation. The throw is made with a reverse of the feet and the competitor must fight to keep from going over the board and fouling. Many throwers run up, stop, and throw. This fault gives little or no benefit from the run. The speed of the run must be used to add to the distance of the throw.

Check marks, similar to those used in broad jumping, are used to gauge the distance from the finish. One may be placed two strides back of the reverse and another six strides back of this. Any other method is good which brings the thrower close to the board without fouling on the finish.

Training for this event gives special importance to care of the arm. Not less than four weeks of condition are necessary before full-speed competitive throws are attempted. One should take a thorough warm-up before throwing. This may be done by general calisthenics plus pegging the javelin into the ground on short throws. It may help to wear a long woolen sock over the throwing arm on cold days. Elbow injuries are frequent if care is not used. Beginners may want to start with a metal javelin which is not so easily broken during a new man's awkward days. It is well to practice throwing a great deal higher than seems natural to try to throw so that the shaft follows the point, not to tip the ground with the tail of the shaft in throwing, and to try to deliver the throw straight ahead. Measures are made in this manner, not on an angle, so any "side slip" is lost motion.

Relay Races

There is a great variety of relay races. The most popular is the mile relay, each man running 440 yards. The half-mile and 440-yard or sprint relays are on some programs. Medley relays are those where the men run different dis-

tances. Superior performers in the longer distances are a great asset to such a team. The distance relays, two-mile and four-mile, put emphasis on a number of good distance runners. The best college mark in the classic mile relay is by California, 3 minutes 9.4 seconds. Hollywood high school has a mark of 3 minutes 21.4 seconds.

The mile relay, last event on dual meet programs, is often the deciding event. It scores only 5 points, but there are no second-place points, so winning or losing makes a difference of 10 points. The backbone of a team is a number of good quarter-milers. Half-mile and sprint men may be pressed into service. Combinations with other events should be considered before the race is to be run. Either the 440 or 880 is good for combining with the mile relay.

Baton passing is important in the mile relay, and still more so in shorter relays. Many inexperienced racers make the mistake of running off from a faltering runner at the finish of his race and then having to wait and slow down their start. The baton should be grasped on its lower end so that the receiver has plenty of room to take hold of it. The pass may be nonvisual or visual, hand-to-hand. A better start is obtained if the arm is turned inward rather than out. In either case the palm is up and thumb spread from fingers. Nonvisual passes may be made with eyes ahead. They are best used if the incoming runner is under control, not exhausted. The thumb may be pressed against the hip and the fingers extended. The pass is then made up into the hand. Or, the finger tips may be pressed against the hip with the elbow bent out and the thumb extended. The pass is then made down into the hand. It is well to transfer the baton at the start of the run before getting tired, taking a grip on its lower end so that one can pass freely to the other man. Only the second and third men need to make this shift on the exchange.

Strategy of the race includes the placing of the men. It is general practice to have the best man run anchor, or last man. Second best may run first, and the other two with little choice between second and third. The temperament of runners enters into this matter. A man who can run in front

but gives up when the opponent has a little lead should hardly run anchor. It is a considerable advantage to come in first at the end of each leg so as to exchange the baton in the clear.

A good deal of practice is needed in passing the baton so that there may be smooth exchange at good speed. Other training is such as a man will need for the quarter mile. It is well to practice the combination one has in mind with the same elapsed time that there would be on the competitive program. This applies to all combinations of events.

Chapter VIII

RECREATIONAL AND COMBATIVE SPORTS

The young man who competes during his school days in the major interschool sports, as well as the one who does not, needs training also in individual competitive sports and in activities that can be enjoyed over a period of many years. Some of the more popular of these activities are discussed here rather briefly. They are presented in summary form especially for the use of the beginner and the casual player rather than for the guidance of the competitor who is chiefly concerned with wins and losses or championships. Those who wish to specialize in any of these sports will need in addition access to more complete and detailed information.

BADMINTON

This is one sport that provides pleasure almost the first time it is played. Even those who are not skillful at sports in general can start right out enjoying badminton, for the shuttle cock flies rather slowly through the air with beginners, thus allowing more time in which to judge its flight and to hit it. Then, too, if it is missed it will not roll a long way off, but instead will fall and stop close by. That removes ball chasing, an extremely unpleasant chore which accompanies the first practice periods in many sports.

The official game is played with a shuttle cock, and anyone who wishes to prepare for tournament play should practice with it; however, those who wish to reduce the cost of the game will find that a woolen ball, tied at the center, is quite satisfactory for general play. It is somewhat faster in flight in that it does not slow down as suddenly near the end of its flight as does the shuttle, but the differences in performance are not great. With it the essential techniques of badminton can be learned at small cost to the learner. Shuttlecocks are rather expensive. There is some difficulty in changing from the ball to the shuttle, but that can be

overcome in a few weeks' practice. For purposes of discussion the term shuttle will be used to represent either shuttle or ball.

Playing the Game

There are two major phases of badminton play: *serving* and *general play*. In serving the stroke is made with the racquet head below the hand grip on the racquet, which, in turn, must be below the waist. This restriction does not reduce service to merely a method of starting play. It still permits the use of service as a means of attack. In order that the service may be a means of attack, the server must employ it properly. He should keep the shuttle out of the center of the opponent's court. The service should be either low and short, long and high, or to one side or the other of the court. Any service that is well above the net and in the front of the receiver's court is too easy for him to kill. A good server should be able to place the shuttle within a few inches of a spot at which he aims. In serving, the player should stand in the front part of the service court with the weight well distributed on the feet, which are about at right angles to the direction of service. The knees should be bent and the body bent forward at the hips. The shuttle should be held low in the free hand and dropped just as the racquet is about to hit it. The stroke is made by holding the racquet head down or down and to the side, drawing it back, and then flipping it into the shuttle. The eyes should be on the shuttle until after the racquet hits it.

The receiver should adjust his position according to the kind of service he must meet. In general, however, he should stand in the back part of the front half of the receiver's court. In returning the service, as in general play, the shuttle should be hit to the opponent's weakness or kept away from him. If he plays deep, the return should be short; if he is up close, the return should be deep and to his backhand, especially if it is weak. As in the case of the service, the stroke should be made with a flip of the wrist. In the forehand drive, the motion is similar to that in a baseball throw. A long, full, sweeping stroke takes too much time and does not impart sufficient impetus to the shuttle. It also enables the opponent to anticipate more accurately the direction of the shot. High returns should be smashed if they

are not deep in the court, and, for the player who smashes well, many should be smashed even if they are deep. An occasional feint to smash which develops into an easy return just over the net is often a successful shot. Any deception which keeps the opponent guessing concerning the coming play is an asset. Short shots just over the net to one side can be angled low across the net to the opposite side with considerable success. The eyes should be on the shuttle until the racquet has met it. If the player is pulled out of position in returning a shot, he should move immediately back into position, which is approximately the center of the court. He should learn to step in the direction of the shuttle, to hit it, and then step back to the center of the court with as little waste motion as possible. This saves time and energy and leaves him in a favorable position for the next play. It is good strategy to make the opponent do as much of the running as possible. The more he must run to return the shuttle the fewer opportunities he will have to place his shots well, and to get into position to defend against the next shot that comes into his court. Then, too, the more he runs the sooner he will tire.

VOLLEYBALL

Volleyball is an excellent indoor or outdoor game for a variety of age groups. When properly played it is a scientific game requiring marked skill and teamwork. Less experienced and less skillful players, however, can enjoy the game while developing their ball-handling ability. One of the first things to learn and observe about volleyball is the position of the players. For a regular six-man team the players in the front line should stand close enough to the net that they can reach out and touch it; those in the back line should stand from two to three good steps from the end line. The players move from these positions as the occasions demand, but usually come back to them for the start of play for another point. Beginning players usually stand too far back in both the front and back lines.

The Competent Volleyball Player Needs the Following Skills or Abilities:

1. *The ability to defend against opponent's shots:* He may do this by blocking the shot at the net. To do this

successfully he should time his jump so that his hands and wrists are up above the height of the net and moving forward as the opponent hits the ball. This play is rather difficult to execute successfully and should not be used in a game until it is well learned. The tall player is more likely to succeed at it than is the short player. Two players blocking together have more chance to succeed than has one player blocking by himself. For beginners, only a small part of the defense consists in blocking shots at the net; most shots must be returned by beginners from their regular positions. For doing this a commonly used, sound defensive position consists of facing the ball, spreading the feet well, bending the knees and the hips; holding the hands down and to the side with the elbows bent, and tensing just enough to be able to move quickly. As the ball approaches the hands are moved in such a way as to tip the ball up into the air toward the net if possible. If the approaching ball is low, the hands are down there to meet it as they move upward; if it is high the hands can be raised more quickly to play it than they can be lowered and then started back upward to meet the ball as will be necessary on low shots if the hands are carried high while awaiting the ball. Defensive play also includes recovering balls that a teammate has been unable to control. Alertness and moving toward a teammate who will probably have difficulty with the ball he is playing aid greatly in recovering balls of this type. A player should turn and face all balls that pass over his head or by him.

2. *The ability to take balls off the net:* This is something of a problem on those shots that fall or are driven downward into the net. To take these balls out of the net successfully the player should squat or drop to one knee, being careful to remain in his court, and extend his hands under the net while the ball is in contact with the net. When playing the ball for the second hit as it drops from the net, he should tip it up and back with a flip of the wrists, far enough to be sure that it misses the net. When playing for the third hit on a ball that drops down very close to the net, the ball is played up toward and over the top of the net. On a hard drive directly into the net, the ball may bound back into the court far enough to be played over on the next shot.

3. *The ability to serve:* The inexperienced player should be sure first of all that his service is in court; then that it is deep or well back toward the opponents' end line, and last that it is hit hard, with lots of spin, or otherwise made difficult to return. His big task is to deliver a good, deep service rather than to attempt a tricky or difficult service which results too often in a fault. The underhand service with the open hand or closed fist is best for general purposes, for it is easier to control. The side-arm service is somewhat harder to control, but provides more of a problem for the opponents if it is in court. The overhand service is hardest to control and also most difficult for the opposition to return. Some experienced players use the overhand service very effectively, but it is not recommended for the high school or average college player. In making the underhand service, the player should take his position behind the right hand one-third of his end line, with his body bent at the knees and hips. The ball is held at about the height of the knees with one hand, then tossed up slightly and hit with the other hand. The eyes are on the ball until after it has been hit. After hitting the ball, the player should step immediately into his regular playing position.

4. *The ability to pass the ball up to the net men:* This pass should be high and well arched so that it comes down just slightly to the spiker's side of the set-up man. This enables the set-up man to face the man to whom he is setting the ball. Some of the pass-ups will need to be made from low positions, some from high positions, and some from far to one side or the other. In making the passes, the wrists should be flexible, permitting the hands to flip the ball. This is the secret of control.

5. *The ability to set up balls:* It is well for all players to practice this skill. It is a special skill, however, for certain designated players on well-organized teams. It is the setup man's task when on the front line to place the ball in such a position that the spiker can drive it down hard into the opponent's court. This position is usually several feet above the net and from 6 inches to 1 1/2 feet back from the plane of the net. In making the setup he should, when possible, get under the ball, crouch, and flip the ball up with flexible wrist action. He should not jump into the

air as he sets up the ball, but instead should remain on his feet in good balance. The success of a team's attack depends to a marked degree upon the efficiency of its setup men. Although less spectacular than spiking, it is just as important.

6. *The ability to spike:* This is a specialized ability needed by at least two but better possessed by three members of a team. Experienced spikers often step away from the net and then run forward a step or more to hit the ball. Spiking consists in getting up high into the air and driving the ball down hard at the weak spot in the opponents' defense. Judgment and finesse are desirable qualities in a spiker, but the most important qualification is the ability to hit the ball hard into the opponent's court. The spiker must guard against touching the net, reaching over it, or touching the opponent's court under it. It is generally the tall men who are the spikers, but some shorter ones who can jump well and time the spike make excellent spikers. Much practice in jumping and hitting hard at the height of the jump is necessary to develop this skill. The follow through must be limited to prevent hitting the net.

Volleyball Hints

The player should:

1. Keep looking at the ball until he has played it.
2. Keep the ball high up in the air except for the spike.
3. Play the ball deep into the opponent's court, if it must be played to the opponents without being spiked.
4. Turn to face all balls which pass over his head.
5. Be sure his service is deep and in court.
6. Praise his teammates.
7. Shift immediately upon gaining service in order to keep the game moving.
8. Give additional attention and practice to the skills in which he is weak.
9. Set the ball up rather than bat it back across the net on the first or second shot.

10. Rush to the aid of a teammate who is attempting to recover a difficult ball.
11. Keep his feet on the floor when passing up and setting up balls.
12. Play his own position. The player who makes a practice of playing his teammates' position is a nuisance.

GOLF

Success in golf depends as much upon correct temperament as upon ability to execute the strokes properly. It is not a difficult matter for a competent instructor to teach the average player who will follow instructions when to use each club and how to use it. It is very difficult, however, to instill sufficient confidence and nervous control to carry the golfer through tense and trying situations. He who succeeds in golf is necessarily a sound *practical* golf psychologist. When a situation arises that calls for more than ordinary poise he has it. This is not something that comes to some by inheritance and passes others by. It is very largely developed by one's own past experiences. It has been built and can be rebuilt in a more favorable pattern by the player who cares to spend the time and effort to do it. He who wishes to improve his golf game must develop correct attitudes as he develops his strokes. It is wrong golf to fear a 3 foot putt. A much larger percentage of putts attempted in confidence drop into the cup than do those made in fear and doubt. Many of the short approach shots that are dubbed in front of the green are the result of tensions and fear that they will fall short or roll over. The player who is able to conquer his fear and tenseness close to and around the green will shoot a respectable score if his strokes are at all correct, for it is in this area that many strokes are wasted. Golf gives one much time to think and get tense between shots. If, instead of wasting that time worrying, the player uses it to arrive at the perfectly obvious conclusion that there is nothing to fear and that he can make the ball go where he wants it to go, he is on the road to success. Excellent golf requires well-controlled emotions just before the shots are made, even though the player may explode afterward.

There are, of course, skill fundamentals in golf which must be practiced and followed in order to shoot a good score. Some of the major ones are discussed briefly below.

The Golf Player Should:

1. *Keep his eye on the ball:* This is important because it prevents the head from moving out of line and thus spoiling the entire swing. Seeing the ball is of little consequence, for many golfers could hit the ball as well with their eyes closed, after a little practice, providing they kept the head in place. The movement of the whole body is affected by the movement of the head as anyone can discover who looks up into the air and turns his head about while walking.

2. *Grip the club firmly at the moment of impact with the ball:* A great many dubbed shots result from a loosely held club. This applies to all clubs. A club cannot be controlled unless the grip is firm enough to direct its movement at the time it meets the ball. It is a mistake to use a greater distance club than necessary and then hold it loosely in the hands to reduce the distance of the shot.

3. *Swing the club in the direction of the hole:* This rule applies to all clubs. It condemns the circular swing which draws the club across the ball and thus produces a hook or slice. The club head should follow the ball toward the hole before moving out of line, as it must later for most clubs, to complete the swing. Many missed putts are the result of swinging the club across the ball rather than directly at the cup.

4. *Move the body weight into the swing:* This body movement increases distance and helps maintain direction. The player should avoid falling away from the ball during the swing, or stepping back from it. Rotating the hips into the swing helps get one's power behind the ball.

5. *Hit them hard enough to get there:* Players take extra strokes because they fall short on approach shots more often than because they overshoot the green. The ball may drop in if it reaches the cup; it cannot if it is short. The good golfer must have courage enough to get the ball up to the cup.

6. *Keep the front arm straight:* This means the arm closest to the hole and refers to that part of the swing up to and including the time when the ball is hit, after which the front arm is bent and the rear arm straightened. By doing this the player can swing the club head more nearly toward the hole as the club meets the ball, and he can swing it more rapidly, thus giving greater distance to the shot.

7. *Snap the wrist:* This should be started before the club head meets the ball. The wrist snap causes the club head to travel more rapidly. If it is so timed that the snap is at its maximum just as the club head meets the ball, the impetus given the ball will be greatest. The speed at which the club head is traveling before it hits the ball or after it hits the ball is not important; it is the speed at the moment of contact that counts. Many beginning golfers jerk the club back quickly and swing it rapidly during the first part of the swing. This is not necessary, for the ball will stay where it is until hit. Besides that, this procedure is wrong for the power is applied at the wrong time, spoiling the timing of the swing as well as throwing the player out of balance for the shot.

HANDBALL

Handball is played with both a small, hard ball, and a larger, soft ball. For strongly competitive purposes, especially for tournament play, the small ball is customarily used, but for general recreational play the large ball is more satisfactory. The occasional player finds the soft ball much easier on his hands and consequently more pleasant to use, making it possible to play without gloves.

There are two general types of courts (the four-wall court and the one-wall court) or games. The four-wall game is more scientific than the one-wall game, but does not require as much action, because the additional three walls throw back many balls, thus reducing the size of the area into which they might bounce. Four-wall courts cost much more than one-wall courts, and, consequently, are less plentiful. Although there are additional skills required to play well on the four-wall court, all the skills learned on the one-wall court can be used in the four-wall game.

In each case the player must serve. The service is made by dropping the ball, watching it closely, and hitting it on the first bounce so that it strikes the front wall. A good service must bounce back across the short line into the receiver's court. Either the open hand or the closed fist may be used satisfactorily. The open hand provides better control and more curve for those who serve a ball that curves, but the closed hand or fist service provides more speed. The service generally should be hit low, but at times a high lob service is effective if mixed in with the low ones. Most players find a low, hard service more difficult to return than a higher, bouncing, easy service. A hard service which is hit low will stay in court much better than one that is hit high. The wrist should be snapped as the hand hits the ball, making the arm motion essentially the same as a side-arm or underhand peg in baseball. If the open hand is used, it may be cupped to make contact with a greater share of the surface of the ball, thus giving better control.

All handball players should learn to hit the ball effectively with either hand. The balls to the left should be hit with the left hand, the balls to the right with the right hand. The player should not run around the ball to hit it with his more accurate hand. Here, as in serving, the closed or open hand may be used to advantage. Most balls should be played low on the wall, for the low ones are harder for the opposition to return. At times, however, a high lob will pull the opponent out of position and help wear him down. If possible the player should step into his stroke as he makes it and keep his eye on the ball until he has hit it. The position of attack is at about the short line in the center of the court. The player should gain that position if possible. To do this he should hit the ball to one side, back court, or short, so as to pull the opponent out of the attack position. If one is pulled out of position by an opponent's shot, he should hurry back into the attack position or another defensive position further back in the center of the court as quickly as he has completed his own shot. It is sound strategy to run the other fellow as much as possible by hitting the ball to one side and then to the other, or to some other spot which is difficult for him to protect. It is also sound strategy to mix in an occasional easy shot with the hard hit balls. Especially on one-wall courts a shot from one side can be

angled across to the opposite side to score a point or pull an opponent out of position. If the opponent anticipates such a shot and shifts in that direction, then a shot down the same side on which the ball is in play can be used effectively. Any difficult shot for the opponent to return may cause him to set up a "cripple" (a ball easy to play for a point or side out). All players should be on the alert in order that they may take advantage of weak returns by their opponent. It is sound practice to play many shots to the opponent's weakness, or to the hand which he seldom uses to serve.

TENNIS

Tennis is one of the most popular spring sports in high schools and colleges both for intramural and interschool competition. It is advisable for the beginner in tennis to practice the correct forms and techniques. Then he will not be faced later on with the difficult task of unlearning incorrect methods of play. In this discussion of tennis the major fundamentals will be considered briefly in turn.

The Grip

Different grips have proved satisfactory for various players. A common and effective method of securing an effective grip consists of holding the racquet in the free hand with the edge of the racquet head toward the ground and the handle toward the hand that is to grip it, then reaching out and gripping the handle as if to shake hands with it. By holding on to that hand-shaking grip the player has his correct grip on the racquet for the forehand stroke. The grip should be near to the end of the handle. For the backhand stroke, the racquet handle is turned one quarter turn to the right. At the moment when the racquet meets the ball, the grip on the handle of the racquet should be firm to prevent it from turning in the hand.

The Service

The service in tennis is a portion of one's system of attack. It is more than just a means of putting the ball in play. The service commonly used by the majority of the better players is the American twist. In this service, the

ball is hit with an overspin so that it will drop quickly into the service court after crossing the net, and then, for a right-handed service, bounce high and to the receiver's left. A straight or flat service hit by a player of average size will need to pass within a few inches of the top of the net or it will fall beyond the service court. A well-hit American twist service can pass within 18 inches or 2 feet above the net and still land in the service court. This provides a much greater margin of safety than does the flat service. By throwing the ball farther to the left on the service, the player will find that his stroke will impart the desired overspin. The ball should be met about as high as the player can reach readily. Much practice is necessary in order to coordinate the racquet swing with the toss in such a way that the racquet meets the ball at the proper time. Many players have a poor service because they have not learned to throw the ball properly. This part of the service needs as much practice as does the swinging of the racquet. The ball should reach its greatest height just about the time the racquet is starting to move forward toward it. Then it will be hit after it has dropped a few inches. The first service should go into court most of the time. If it does not, the player may be hitting it too hard. The second service should be hit with almost the same force as the first service. It should be the same type of stroke. Then the first service, if missed, can serve as a sort of range finder for the second. A terrifically hard first service that only goes in occasionally, followed by an easy second service, definitely takes the attack away from the server and gives it to the receiver. The remedy consists in hitting the first one not so hard as before, and the second one harder than before, thus more nearly equalizing the speed of the two services. This point needs emphasis, for it is most difficult for the inexperienced player to learn.

The Forehand Stroke

The forehand stroke should be made with the left side of the body (for the right-handed player) toward the net. While waiting for the opponent's shot, the player should face the net, crouch slightly, and watch the ball. As soon as he sees the direction of the ball, he should step into the proper position. If it is on his forehand the left side

of his body should be turned toward the net with the feet well spread, the knees slightly bent, and the racquet pulled back. He should move into the ball as he hits it. He should meet the ball almost squarely in front of his body with a sweeping motion of his racquet. As he completes the stroke the face of the racquet should be turned downward enough to give the ball moderate overspin. This will help keep it in court. He should avoid excessive overspin for it makes the shot hard to control. The player may wish to experiment with the flat drive or the underspin shot, but the overspin drive will serve him best for most purposes and should be learned first.

The Backhand Stroke

This stroke is more difficult for the average player to learn than is the forehand stroke, chiefly because he does not practice it correctly. One major fault consists in failing to draw the racquet back far enough soon enough, and the other consists in failing to swing the racquet through at the ball. Many players seem to be afraid to hit their backhand shots. As the opponent is preparing to make his shot, the player should stand facing the net as suggested above under the discussion of the forehand stroke. When he sees that the ball is coming to his backhand he should get in position to hit it on his backhand. He should by no means run around it and hit it on his forehand. Proper maneuvering for hitting the backhand stroke consists in turning the right side toward the net (for the right-handed player), spreading the feet well, bending the knees slightly, turning the racquet handle one-quarter turn to the right, and pulling the racquet well back and up with the opposite side of the face from that used in the forehand stroke ready to hit the ball. If the ball is far to the left the player may use a cross-step and turn so far that his back is almost toward the net as he hits the ball. It is very important that the player form the habit of stroking the ball on the backhand instead of poking it. The ball should be met from 10 to 15 inches closer to the net than the right side of his body as the player moves into the ball. Players must develop courage enough to hit the ball. Since most of them have better control at first when poking the ball than they do when stroking it, there is a marked tendency to poke it. This is likely to

lead to entire neglect of correct practice of the backhand stroke.

The Smash

This is another shot that demands courage. The fear that the ball will go into the net or out of court causes many beginners to tap high balls close to the net instead of smashing them. The stroke for the smash is essentially the same as the service stroke with less overspin. The smash is more of a flat drive than is the service. Since it is made closer to the net and the whole playing court provides the target at which the shot is made, it is not necessary to give the ball the overspin to keep it in court. Timing on smashes is difficult but extremely important. Consequently it is necessary to practice smashing much more than one can in the regular course of play. One player can lob the balls up while the other smashes them. A few minutes of this type of practice every day will improve one's overhead game.

Volleying

Volleying consists in meeting the ball with the racquet before the ball hits the ground. Technically the smash is usually a volley. However, the discussion of volleying here will consider chiefly those low-flying balls that are met with a poke and a wrist snap rather than a full stroke. Most of these plays are made from close to the net and depend quite largely upon the player's ability to get into the position of attack at the net. In volleying, the player should grip the racquet firmly and use a short, poking stroke with a wrist flip if he wishes to volley sharply, and with a wrist "give" if he expects to lay the volley down short and easy. His footwork is the same as for other forehand and backhand strokes. For low balls the knees and the body should be well bent and the head kept as nearly as possible on the level of the flight of the ball.

Six Playing Suggestions

The player should:

1. *Put his weight behind the ball:* In order to do this effectively the player should get in such a position that

he can be moving toward the net as he hits the ball. This will enable him to get more power into his shots without losing control.

2. *Emphasize control*: Speed without control is useless, for too many balls will go into the net or out of court. The player should first work for control and then speed up his strokes as his control permits. Those top ranking players who hit the ball hard have spent years learning to control their speed.

3. *Move immediately into position*: The player is constantly being pulled out of position by the shots of his opponent. In order to return the ball he must move to the spot to which it is hit. As soon as he has returned the ball he should move back into position rather than stand where he was when he hit the ball and note where his opponent will drive it before adjusting his position. There are two correct positions for the player who is awaiting the return of the ball. The one best position for general purposes is about one yard behind the baseline in the center of the court. The other position, which is particularly favorable as a position of attack, is in the center of the court from one to four yards from the net. This position should be taken when the opponent has to make a difficult or hurried return. It should not be taken when the opponent can take his time on a shot from the front part of his court.

4. *Gain the position of attack*: That is the position at the net mentioned above. This position can be gained by following in a service, especially the American twist which travels without great speed and bounces high and deep. It can also be gained by following in a forcing shot (one deep and difficult to return) from the back court, or by staying up there after returning a short shot from the opponent which falls in the front court. The net position provides a distinct advantage for the man who can volley and smash well because he can protect a large part of the court, thus leaving only a small part open for the opponent's shots; and most balls that come to the man at the net can be played into difficult positions for the opponent to return.

5. *Play his shots deep*: There are several values in keeping one's shots deep, one of which is the longer time

gained to watch the opponent's return shots. Besides that the opponent has greater difficulty getting up to the net where he can attack more effectively. He must also hit the ball harder to get it back, and he has less opportunity to place it well. A few degrees variation in the direction of flight will cause a larger percentage of shots made from the baseline to go out, than will shots made from the net position.

6. *Keep his eye on the ball! This is the most important of these six suggestions.* If the head is twisted or swung around the stroke is ruined, for the other body parts move out of line to balance the head, which is then out of the proper position for the stroke. For that reason the eyes should remain on the ball until the racquet meets it. This will prevent the head from being jerked out of position, thus lessening the accuracy of the stroke. Then, too, if the ball does bounce badly or curve, the stroke can be adjusted accordingly if the player is watching the ball closely.

Suggestions for Doubles Play

1. On service, the server's partner should be at the net (a yard or two away) just inside the singles court line, on the side to which the service is being made. He should guard well against shots down the alley on his side of the court, for the server will have great difficulty returning any such shots.

2. The server should avoid doubles and weak services that leave his team, and especially his net man, almost defenseless against the opponent's returns.

3. The server should strive to gain the net position with his partner either by following in his service or by following in the next shot he makes. If he cannot gain the net position his partner should drop back.

4. Partners should take the net together, except on service. One man up and one man back constitutes a weak defensive position.

5. In case of doubt, especially for amateurs, the ball should be hit down the middle; there is less chance for it to go out and the opponents may become confused as to who should take it.

6. Most shots should be deep, for that helps a team gain or maintain the net position, and this attack position is extremely important in doubles.

7. It is much better strategy to lob deep when the opponents have the net position than it is to try to drive the ball through their position. Effective deep lobs will usually pull the opponents back from the net position.

8. Sharp cross-court volleys from the net position are often effective.

SWIMMING AND WATER SPORTS

Swimming

This sport is excellent for general development and recreation and has great survival value for all who may find themselves in water in an emergency. Swimming and other water sports are among the more social of recreational sports. A large number can engage simultaneously and in the same place regardless of age, sex, ability, or interests, if the pool is built correctly. The facilities for enjoying water sports in the summer are provided by nature in many regions so that very little expense is involved; winter facilities are expensive. Safer conditions prevail in supervised pools. Every swimmer and canoist should know that each year several thousand lose their lives by drowning and many thousand experience "near-drowning." The annual loss of life in the United States due to drowning is in excess of 6,000. Water sports are more hazardous than all of the other sports combined.

These dangers may be largely eliminated by using common sense. Safety in other sports may be learned after a leg is broken. In water sports the first thing to remember is that one mistake is the limit to one customer. An ounce of prevention is worth all the cure in the world.

A. *Knowledge:* Every person who goes swimming should know first of all how long, when, and where to swim. People do not get into difficulty because of the habit of caution, and some break their necks every year diving into too shallow water. The small child or an adult without knowledge or skill may face the danger of drowning. So may the swimmer

who overrates his ability. Every individual should learn as young as possible how to handle small craft (canoe or row boat), what to do in uncommon situations in the water, and how to assist or rescue others. Some individuals can stay in the water a long time without being chilled or exhausted, others only a few minutes; every swimmer should realize that not only does the temperature of the water make a difference, but the natural resistance of the individual as well.

In a good portion of the country out-of-door bathing is limited to the summer months. Many drown at the beginning of the season when the first warm days arrive; the water is cold, and the swimmer who is not in condition because he has not been swimming all winter overestimates his ability. One should never swim until two to three hours after eating. Nor should he swim if he has reason to believe his heart is not in the best of condition.

As to where to swim, this again has to be guided by common sense. The best place to swim is where one is guided by the supervision of a life guard, and with a companion swimmer. A swimmer should always know the conditions of the water, tide, undertow, depth, and hazards such as deep holes, hidden rocks, snags, and underwater trash.

Points Every Swimmer Should Observe

1. Some individuals can swim for longer periods and in colder water than can others; it is not wise to try to do all that the other fellow does.

2. If a boat or canoe capsizes, one should not leave it but should hold onto the boat while it floats; or even hold onto an oar if the boat gets away.

3. The swimmer should never try to teach a person to swim by tossing him into the water.

4. An off-shore wind will make the waves appear to carry one back—if he goes slowly he will make shore more easily.

5. One should not swim immediately after eating.

6. A cramp in the foot or leg can usually be pressed or kneaded out by the swimmer himself when it first appears.

7. It is dangerous to swim alone.

8. A man should not dive where he does not know the depth of the water.

9. A swimmer should not attempt too much—especially swimming across streams, lakes, or channels.

10. He should not stand up in canoes, or rock the boat.

11. In case of emergency he should keep cool and make haste slowly.

12. He should not go into the water for a rescue if rescue can be effected by a pole, rope, boat, or surf board.

13. He should learn to give artificial respiration. It may save a life.

B. Skill: Skill is a prime essential. One should learn to float and do a simple stroke before attempting any more advanced strokes or diving. If possible, it is good to take instruction with a group, as from a Red Cross instructor; if no such group is available, then one should find a trained adult who will help. Practice is up to the individual.

Face Float

This is the first step toward swimming and the initial position where one may find himself in case of an emergency. The swimmer should take a fairly deep breath and lie down, eyes open, arms over head, and feet together. To get up, he should bend one knee, as in going up stairs, and stand, feet slightly apart.

Float

To float one should lie on the back, with arms extended sideward (palms up), breathe normally, and keep knees apart if any difficulty in keeping up is experienced. To stand upright in the water, a man should step up with one knee, bend the head forward, and scoop the hands toward the body.

Dog Paddle or Modified Crawl

Alternate leg and arm drive and recovery. One should breathe regularly, and as soon as the arm and leg function is mastered, lower the head and start submerged exhaling.

Elementary Back Stroke

Either this stroke or the modified crawl is good for the beginner. The back stroke is a good "rest stroke." From the back float with the head resting easily in the water, eyes open, one should bring the hands easily up the side of the body (thumbs toward the body), with elbows bent and down, push arms out to horizontal, fingers leading, and drive the arms to the side of the body to give push to the stroke. The arms rest as they go slowly up and out of the water. Legs start together, bend slowly at the knees, feet together, legs straighten easily and snap together. As arms push toward the body, the legs float out, and as the legs snap down, the arms are coasting easily up and out. It is well to breathe with every stroke and to be careful to keep the hands near and in the water until they reach the arm pits, or the head may be submerged. Snapping the legs and arms to the body together will also submerge the head.

The Crawl

This is probably the most popular stroke. The body is in prone position, with the feet slightly lower than the head, the water cuts the face anywhere from the forehead to below the chin. As the swimmer attains speed, the head and shoulders are carried higher in the water. A very slight roll from side to side serves to permit breathing and a neat arm recovery. Breathing may take place on one side only or on both sides. The arms drive and recover alternately; as one arm drives down, the other is resting by being extended forward slowly and easily. The palm is down, the elbow slightly bent, so that the cupped fingers cut the water in front of the shoulder. The legs do a 6-beat flutter kick, or in racing sometimes even a greater number. The number of flutter kicks up and down during one complete cycle of the arms determines the beat. The motion of the flutter kick starts in the hip joints and is carried on through the slightly bent knees to the pointed toes. The legs should be as relaxed as possible, especially the ankles, for they allow the feet to be moved by the water. The toes should be slightly pointed in, and the legs have the feeling that there is a loose band around the ankles, allowing them to move easily up and down but not outward. The breathing is usually done on one side, but

can be done on both. As the arm on the breathing side of the swimmer is going back, the swimmer exhales through the nose and mouth thus blowing bubbles away from the mouth. The mouth is then turned sideward, opens, and takes in the normal breath. Most swimmers breathe once each cycle of the arms.

Points of the Crawl:

1. It is best to arch the body below the shoulder blades, not throw the head back, and have the body in a gradual plane.
2. As the hands "catch" water for the drive, the shoulders should be on an equal plane; that is, the shoulder of the leading arm should not be leading also.
3. It is best to rotate the head to breathe only enough for the mouth to clear the surface of the water.
4. The swimmer should relax the forearm on recovery, elbow leading.

WRESTLING

History

Competition in the personal combat sports of wrestling and boxing goes back beyond the beginning of written history. Wrestling had great popularity in ancient Greece. Wrestling and track and field were the primary bases of the Grecian "gymnastics." This was probably the best physical education program the world has known. Modern wrestling is popular in many countries. For physical development no sport is better than wrestling. The muscles of the torso are developed and strong shoulders and neck provide better carriage. The heart muscle and breathing apparatus are strengthened. Besides this, self-confidence is built through development of personal ability to take care of oneself in contact sports.

Training

Since wrestling can be very strenuous and tiring in competition, considerable attention should be paid to training. Strenuous workouts and running are needed. The wrestler needs to observe the rules of good training. He must get

plenty of rest, avoid alcohol and tobacco, and eat nourishing food. He should not eat for at least three hours before wrestling. Another point to remember in maintaining health is that infections may be spread by close contact. To avoid this the wrestler should clean off thoroughly, using plenty of soap with the shower. Eye infections are a serious problem. He should disinfect all scratches and mat burns. Boils may be picked up from dirty mats, especially on knees and elbows. Mat burns may be largely avoided by toughening the skin of knees and elbows. Closely cut fingernails will prevent many scratches. These burns and scratches are the source of many infections and should be avoided if possible; if not avoidable, they should be given proper treatment.

Wrestling on the Feet

An important part of wrestling skill is the ability to handle the opponent and oneself on the feet. All matches start from a standing position, and the wrestler frequently returns to this position after a breakaway. The advantage gained on the feet has a lot to do with the course of the match, though few throwing holds are applied from a standing position.

From the starting position a man should seek to bring the opponent to the mat so that the opponent is on the bottom. This is best done by getting behind or tackling him in such a way as to bring him down. Meanwhile it is necessary to protect the legs so that the opponent cannot grab them. There are several ways of securing such an advantage.

If an opponent stands up rather straight and exposes his legs, a man may grab both legs and dump the opponent backward or sideward, coming down on top. It is well to go down on one knee with the body nearly vertical when trying for this grip. A dive similar to a football tackle with the body horizontal may be used, but it is not good strategy since it leaves the tackler exposed if he misses. The opponent can then get on top too easily.

If a man takes long steps and does not keep himself well balanced, it may be possible to jerk him off balance still farther and go behind. To do this, a man should get a good

cross grip on the opponent's leading hand with his own hand on the opposite side, that is, grasp his left wrist with the left hand. Then he should grasp the elbow of the opponent's left arm with his own right hand. As he pulls the opponent forward, he should sidestep and come behind him, grasping him about the waist with both hands. Then he should lift and jerk backward so that both the opponent's feet are off the mat. He continues to fall straight backward and, as he approaches the mat, gives way to one side and comes around on top of the opponent, who will be the one to receive the force of the fall.

Another and usually more effective means of going behind a man is to go under the opponent's elbow. The wrestler spars for an opening until he finds a chance to work in rather close with the opponent fairly erect. From a position with the opponent's hand on his neck, he pushes up on his opponent's elbow, at the same time ducking his head sharply and coming up with the shoulder under the opponent's armpit and with the head behind him. From here it is easy to turn and grasp him around the waist from behind and to jerk his feet off the mat and fall backward as described in the preceding paragraph. Another method from the position behind is to drop hands down, grasp both ankles, and push forward with the shoulder.

If a man takes a long step, turns sideward, or otherwise exposes one leg unduly, a wrestler will grasp it and attempt to pull the opponent off balance or to go on in and grasp both legs. It is also possible to raise the leg high, get the opponent in precarious balance on one foot, then use the leg to trip him. The best means of going after an exposed leg is to reach for the ankle with the hand from the opposite side, that is, to try for the opponent's left ankle with the left hand.

Finally, a word of caution should be given against a common practice with beginners. It is best not to try for headlocks on the opponent. This is because the back is turned to the opponent. More often than not, he will be able to back out of the headlock, which leaves him in a position behind. The percentage on this maneuver is not good.

Defense while on the feet is mainly a matter of position. The feet should be fairly well spread, neither leg greatly

advanced beyond the other. One should move with short, rather than long, steps. The body is carried in a semicrouch, the elbows are bent and the hands held well to the front in a position to protect the leading leg. The weight is carried on the balls of the feet and good balance must be maintained at all times.

The wrestler must be prepared to go quickly backward or forward as the need may develop. When on defense (if a man is grasping for a leg), one should keep the legs straight at the knees, feet back, and avoid bringing the knee to the mat. A good block for a leg-grasp is to bring the arm across the top of the shoulder, up underneath the opponent's armpit and under his elbow. A man should be prepared to go quickly from defense to offense if an opening develops.

Wrestling on the Mat

When wrestling on the feet, the primary purpose is not to secure a throwing hold but to get an advantage of position on the mat, which means behind and on top of the opponent. When wrestling on the mat, the offense is looking for an opportunity to secure a throwing hold. The offensive position is behind the opponent, who is on his knees and slightly to the opponent's side with one arm about the waist and the other on the arm of the near side.

One of the simplest throwing holds is the half-Nelson. To secure this hold one should try to get the opponent off-balance and in a position slightly turned toward his side, then insert an arm underneath his elbow and bring the hand up across the back of his head, forcing his turn to continue in the same direction. At the same time the wrestler will grasp him around the waist or grasp the opposite wrist if possible in a single wristlock. Then the offensive man puts on pressure, pulling his arm up and pushing down on his head so as to force him over on his side and on over in a position where both his shoulders will touch the mat. More power can be gained by pushing with the feet than by attempting to do it all with the forearm. As the opponent turns over on his back, a man should keep close contact across his chest, continue with the arm grip around his neck, and force his own weight down on the opponent's chest, meanwhile maintaining a grasp with the other hand on his wrist or about

his waist. Then he should come through and lock the hands together on the finish, if possible. Still another variation for this hand may be the crotch hold, consisting of a grasp around one thigh from the front. The wrestler should straighten out and extend the body and legs at right angles to the opponent's body in applying any type of half-Nelson. Like all holds it is most effective to snap it on quickly and get position advantage before the opponent can block it.

A second effective hold is the head scissors. This hold is best obtained when the opponent is down flat on the mat rather than up on his hands and knees. To secure this hold one should get his man in a position face down and flat on the mat. The knees should be held closely against the opponent's shoulders. A reverse arm lock, (arm under elbow and pry across back) may be used to turn the opponent or a double wrist lock is also good. As the opponent turns, one should bring the bent knee closely around his head and neck and hook the toe of this foot back of his own knee, making a figure-four scissors. It is necessary to stay up on top of the opponent at all times. The wrestler spreads the knees and uses knees, hand, and one foot as bracing points to prevent the opponent from turning over. He should hold the opponent's hand extended above his head. Some practice will be needed in learning balance on this hold, to prevent the opponent from rolling over and carrying one underneath. The point should be emphasized that a head scissors is not a punishing squeeze of the opponent's head, but a balance maneuver for holding a man down. A man should keep the knees spread for balance, not together for pressure. Another variation of this hold includes one of the opponent's arms as well as his head in the scissors.

The body scissors is one of the best and most useful holds to master. It is an excellent position for wearing down an opponent and securing a fall. Although many wrestlers do not learn to use their legs effectively, working at this phase of wrestling pays big dividends. Long-legged men have an advantage in using scissors. Like many other holds, the body scissors puts a premium on balance and position. It is not a squeeze or punishment hold. There is some pressure on the back and shoulder in the half-Nelson. If it is applied properly, a man does not expose himself too

much in taking the hold. Whenever an opponent on the mat exposes his flank, the foot with toes pointed is inserted in front of his thigh and thrust back between his legs. At the same time, a half-Nelson is applied on his opposite shoulder. If the opponent rolls the hold may be retained. A man stays up on top all of the time, inserts both feet, and locks toes if possible. Both feet at once may be applied if a man is flat on his face on the mat by lifting him quickly by the arms or shoulders and putting on the full scissors. This may also be done if a man sits up on the mat, by putting on the full scissors and at the same time pulling the man backward and taking a half-Nelson, or working into the Nelson from a face lock (upper arm pressing head to one side).

In forcing the half-Nelson and scissors, the man is kept down flat on the mat. *The knees are spread*. One should work for all the leverage possible on the half-Nelson by clasping hands, one arm under the opponent's elbow, the other elbow on the back of his head. The Nelson may be applied from either side. A man stays back as far as possible so that the opponent cannot work backward through the scissors. One should stay up on top, brace with his knees against a sideward roll, and as he applies the half-Nelson, allow the man to turn inside his legs. As the opponent comes over on his back, one should bear down with the maximum possible weight across his chest. One arm is kept about his neck. A man braces with the free hand and with knees out to each side against the opponent's efforts to roll him over and underneath. This is an effective throwing hold. It requires a lot of practice for balance. It is good because it can be applied from a conservative position, and many inexperienced wrestlers are not well-prepared against it.

Defense on the Mat

The best defense, of course, is to stay on the offense. However, any wrestler will get caught underneath at times and must be able to go on from there. A good wrestler is about as much at home underneath as on top.

Proper defensive position is one of good balance from which a man can protect himself against whatever the opponent may try. This will usually be a solid four-point stance on hands and knees with some spread to both hands

and knees, weight primarily resting on the legs, and the body back sufficiently to protect against body scissors in front of the thigh. The head should be up and neck straight and set. The head should never be down on the mat. Even though tired it is not safe to "play ostrich." Worst fault of all is to stay flat on the mat. A wrestler cannot protect himself in this position. He should make every effort to escape immediately whatever he gets underneath. Good condition makes it possible to put forth the necessary effort.

Except under Olympic rules, a man may use an escape from underneath at any time. If possible he should reverse positions in doing so. Even under Olympic rules it is permissible to reverse to a throwing hold. Four common get-aways are described below:

1. *The side roll* is best used if the opponent is up well forward and on top. One should grasp his opponent's hand with his own hand from opposite side, pull it underneath as far as possible, and clamp down on his arm above the elbow with the arm on the same side, duck the shoulder on this side, and raise the opposite hip so as to throw the opponent over the back with a roll partly forward and partly to the side. This is a combination of the action of a roll to the side and a forward somersault. As the opponent comes over the back, one should keep the grip with an arm over his elbow and push with the other hand. The arm grip may be retained as a throwing hold, or a man may turn to face his opponent as he comes over on his back. A face lock and crotch hold may then be applied for a fall. One needs to protect against an opponent applying a half-Nelson or face lock, while trying to use the roll.

2. *The short side roll* is the reverse motion of that described above. One grasps his opponent's hand under the elbow or with the hand, on the same side where he has most of his weight, then moves forward and turns to this near side at the same time, rolling the opponent underneath. This must be a quick surprise move. It is used best against a man who is too far forward.

3. *The switch may work when a side roll will not.* Against a man who stays back rather far it is possible to come up to a sitting position, reach back over his arm, and

grasp his thigh from in front. Then apply pressure by pulling forward on his leg and turning sideward toward the extended hand until the turn carries a man around and behind the opponent. Like all moves, it is done best if done quickly. One should avoid leaving his other arm trailing so that the opponent can grasp it and block the turn.

4. Against an opponent who holds a man loosely it is possible to grasp both his hands, step forward and stand up, move away quickly, and turn to face him. One should try for surprise against a tired opponent.

There are numerous other getaways. The double wrist-lock is especially good but dangerous to use by green men. Anyway, it is not so necessary to know a great number of maneuvers as to get a few thoroughly learned so that the wrestler can use them well.

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